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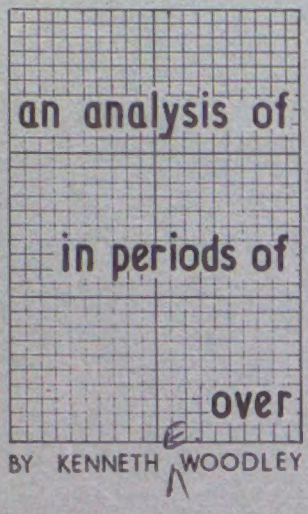

an analysis of RAINFALL in periods of CONSECUTIVE MONTHS over NORTHERN IRELAND

BY KENNETH E. WOODLEY

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An analysis of Rainfall in periods of consecutive months over Northern Ireland

by KENNETH E. WOODLEY
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INTRODUCTION

1. In the period 1930 to 1951, Glasspoole[1,2,3] carried out statistical analyses of rainfall data from a network of stations in the British Isles, with particular emphasis on rainfall over consecutive months. Dixon[4] reviewed the subject further in respect of data from stations in Ireland.

2. The present paper examines rainfall data in periods of consecutive months from seven stations in Northern Ireland, from which reasonably homogeneous data are available. It was proposed to restrict analysis to data from stations with at least 80 years of record, but this limited work to low-level stations with consequent low rainfall: the project was, therefore, extended to include Glenedra Lodge in the Sperrin Mountains, for this record, despite its shortcomings in terms of homogeneity, was thought to be the best available for a relatively long period (47 years).

3. Details of the stations whose data were used for this paper are given in TABLE 1, which also includes the number of rainfall values, n, used in the analyses for single months and sequences of two up to thirty-six months. Totals are included to provide a guide to the bulk of data used, clearly necessitating the use of computer methods. It may be of interest to note that, once the programme had been planned and the raw data taped, the tabular, arithmetic and ranking work for the sixteen tables per station only took some forty-five minutes per station to complete.

TABLE 1 - DETAILS OF STATIONS

Station name	Grid Reference	Altitude		1931-60 Avge		Inclusive period		Number of observations			
		ft.	m.	in.	mm.	from to	years	n_1	n_2 ...	n_{36}	Total
Armagh	iH(23) 878458	202	62	33.43	849	1840-1963	124	1488	1487	1453	23 638
Ballymena,Harryville	iD(34) 107028	140	43	41.21	1047	1877-1963	87	1044	1043	1009	16 534
Belfast, Queen's Un.	iJ(33) 335726	57	17	37.22	945	1852-1955	104	1248	1247	1213	19 798
Creggan Res. No.1 ..	iC(24) 415171	315	96	44.64	1134	1878-1963	86	1032	1031	997	16 342
Edenfel	iH(23) 466719	290	88	41.93	1065	1865-1963	99	1188	1187	1153	18 838
Glenedra Lodge	iC(24) 705005	941	287	59.79	1519	1917-1963	47	564	563	529	8 854
Seaforde House	iJ(33) 402435	180	55	40.59	1031	1868-1963	96	1152	1151	1117	18 262
											122 266

COMPARISON WITH GLASSPOOLE'S WORK

4. Unlike Glasspoole's work, which reviewed all stations' data within a defined common period (1870 to 1927), this present paper takes into account all the data available from each station, for periods ending December, 1963 (except Belfast, Queen's University, which terminated in December, 1955).

5. In the main, Glasspoole's papers dealt with the two extremes, the wettest and the driest periods of consecutive months, although the structure between the two extremes was examined for two stations in his last paper. Currently, materially aided by computer facilities, this paper reviews the structure between the extremes at all seven stations.

6. Glasspoole sought to provide generalized data by arithmetically meaning data from stations in certain areas. However, as the exercise was restricted to extreme values, marked variations occurred which were due not only to geographical distribution but to the appearance of values which were rare in terms of overall probability of occurrence. This present paper pursues the question of a general mean value (for any Northern Ireland site), but relates observations at each station of defined probability, giving relatively little weight to the observed extreme values.

7. Following Glasspoole's method, the present paper again considers stations' data related to their annual averages: for this paper the current international standard period, 1931-1960[5], has been adopted for the related averages. The use of "percentage of annual average" eliminates, or at least minimizes, the difficulties which would arise were absolute amounts used.

DEVELOPMENT OF THE PRESENT PROJECT

8. Although work on this analysis started some two years ago or so, for a variety of reasons little progress was made. One of the factors slowing progress was shortage of computer time on the old, slower METEOR computer, and early analysis was restricted, rather like Glasspoole's works, to the tails at the extreme ends of each series of data. The introduction of the new computer (COMET) provided an opportunity to re-plan the work and improve the quantity of information available.

9. Whilst Glasspoole's work, within its limitations, provided a greater variety of analyses, this present paper is restricted to the probabilities of occurrence of amounts over various consecutive month periods, published - probably as a first stage only - to meet the growing customer requirements in Northern Ireland. Thus, the content and format of this paper has been governed, not only by time availability, but by the fact that the project has developed through the period of preparation.

PROCESSING OF BASIC DATA

10. As has already been stated, the large amount of arithmetical work has been done by the COMET computer. Once the basic computer print-outs (described below) were available, the project developed in a series of trials, which were based on summaries, &c. obtained by non-computer methods. For example, the conversion of absolute data to percentages of annual average for the particular values extracted from the print-out tables, were done outside the computer programme, as were the selection of the observations at the relevant probability points. In practice, this would now be built into the basic computer programme.

11. It is appropriate to record briefly the form of the computer work. The raw data fed to COMET comprised the monthly values of rainfall amount in order of occurrence, starting with January's total for the first year of record and ending with that for December of the last year of record: the total amount (in inches and hundredths) was coupled to the month and year of occurrence, also fed into the computer. The computer programme comprised basically two parts: (a) the grouping together of consecutive months and the arithmetic addition of the amounts within each group, and (b) the conversion of the resultant data from an occurrence

sequence to an ranking sequence, highest to lowest value. For manual inspection during the trial stages of the project's development, a full print-out was programmed. Thus, for each station, sixteen print-out tables were available (for one month, for two consecutive months, for three consecutive months ... to twelve consecutive months, and then in six-monthly steps for 18, 24, 30 and 36 consecutive months), and each table comprised the values from highest to lowest in ranking order and each was identified with the month and year of the first month within the consecutive month group.

USE OF PROBABILITY TECHNIQUE

12. Whilst it is not proposed to go into details of the various statistical approaches which have been, or could be adopted, some short explanation of the contents of the graphs, etc. may be necessary for some users of this work.

13. The number of occasions that a particular event has occurred (and may, therefore, be expected to occur) out of a total number of occasions indicates the "probability". For example, an event occurring 9 times out of 10 (or 90 out of 100, or 900 out of 1000) indicates a probability of 9/10, which is usually expressed in the form $p = .9$: an event occurring 99 times out of 100 (or 990 out of 1000) indicates $p = .99$.

14. In this paper values related to $p = .99$, $p = .95$, $p = .90$ and $p = .75$ are used, related to the particular extremes: p_w is related to the wet end of the series, and p_d to the dry end of the series. Thus, for example,

$p_w = .99$ means that 99 values out of every 100 (in the whole series of values for the consecutive month group) fall <u>BELOW</u> the percentage value shown

and $p_d = .99$ means that 99 values out of every 100 fall <u>ABOVE</u> the percentage value shown.

15. Values related to $p_w = .75$ and $p_d = .75$ are shown indicating the "interquartile range" - a term used to define the limits between which half of all the observations in a particular series (consecutive month group) fall.

16. The "median" ($p = .50$) is shown: this represents the middle value of the series - half the values lie above it, and half below it. It is NOT the mean, or average, value of the series.

17. It is perhaps appropriate to say that the extreme wettest value and the extreme driest value are identified as the wettest and driest on record, for they are not necessarily the true extremes ($p = 1.00$) which could occur (cf. comments on Seaforde House and Glenedra Lodge data later in this paper).

PRESENTATION OF RESULTS

18. FIGURES 1.1 to 1.7 illustrate in graphical form the results for the individual stations. The lines join points of equal probability and no smoothing of the curves has taken place: thus, any irregularity occurring in nature is shown. Notwithstanding these minor irregularities, the smoothness of the lines, even those of the extremes, is noteworthy. For practical purposes, the lines between 6 consecutive months and 36 consecutive months may be seen to be virtually straight. Although these graphs are primarily designed to illustrate the picture related to percentage of the station's 1931-60 annual average rainfall, an absolute scale, appropriate to the particular station's graph, has been included on the extreme right-hand side of each graph, in the inch and millimetre units.

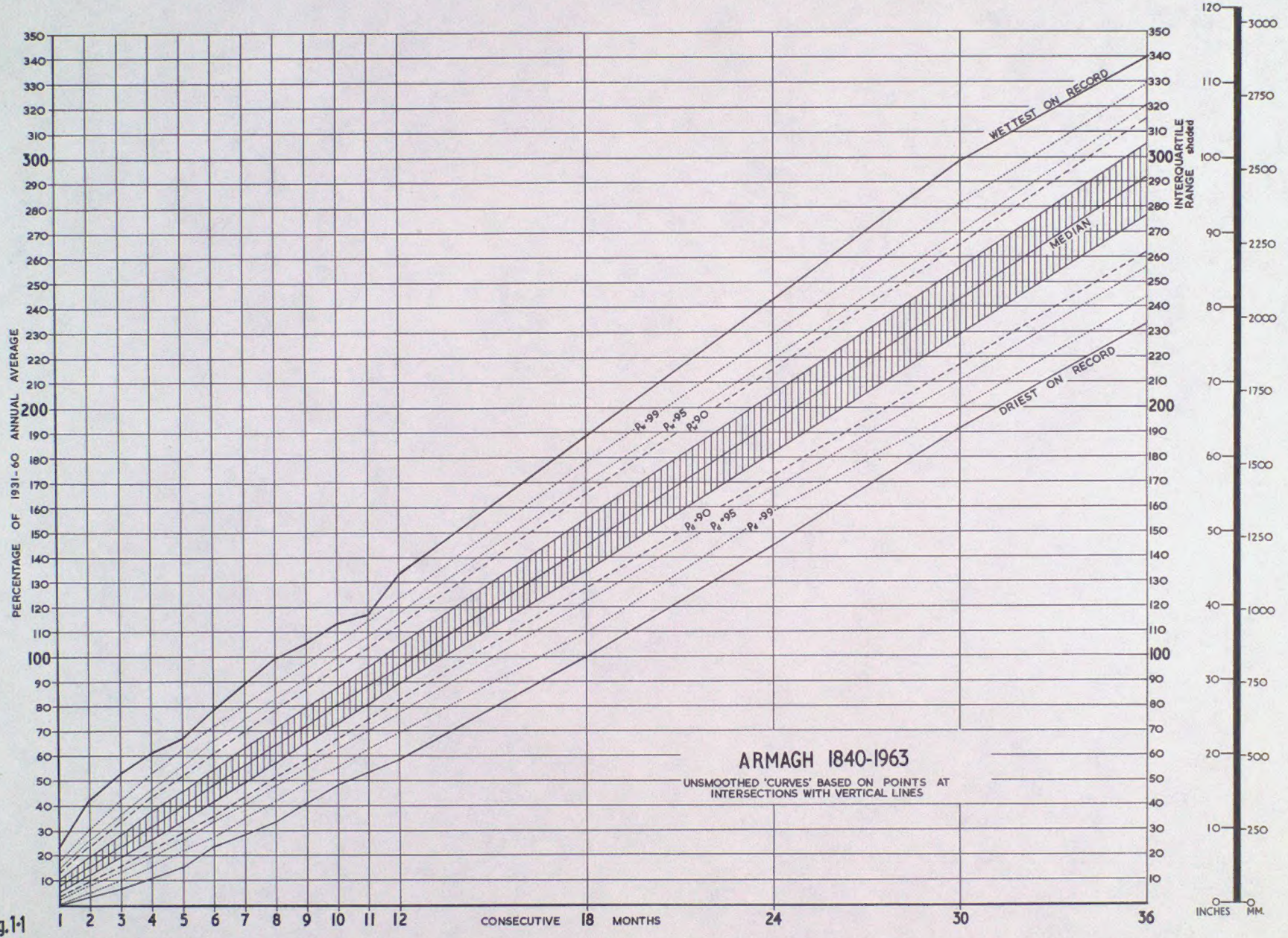

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
CONSECUTIVE MONTHS
WETTEST ON RECORD
DRIEST ON RECORD
MEDIAN
INTERQUARTILE RANGE shaded
P_x -99
P_x -95
P_x -90
P_d -90
P_d -95
P_d -99
ARMAGH 1840-1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
INCHES
MM.

Fig. 1·1

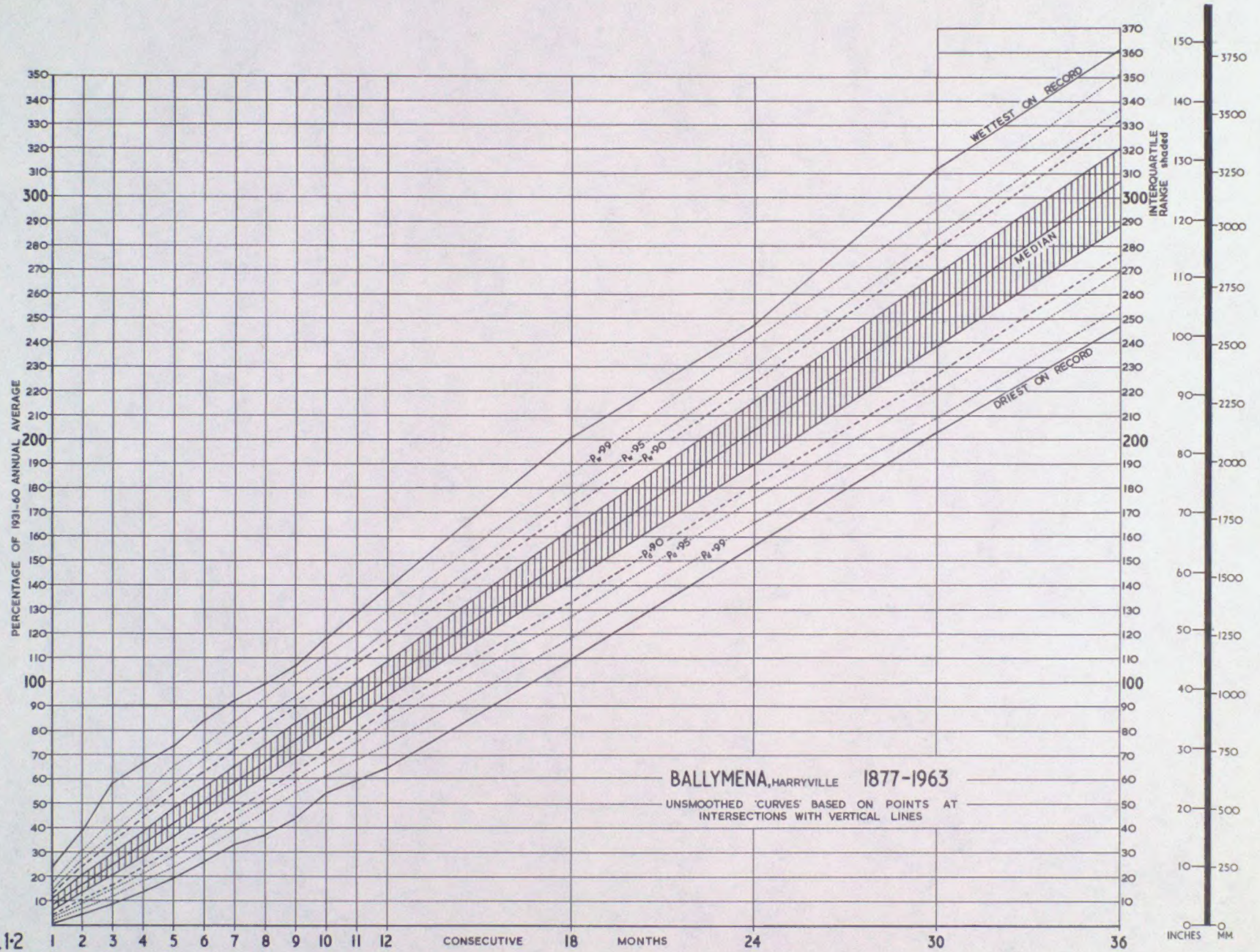

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
P.99
P.95
P.90
P.90
P.95
P.99
INTERQUARTILE RANGE shaded
BALLYMENA, HARRYVILLE 1877-1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
CONSECUTIVE MONTHS
INCHES
MM.

Fig. 1-2

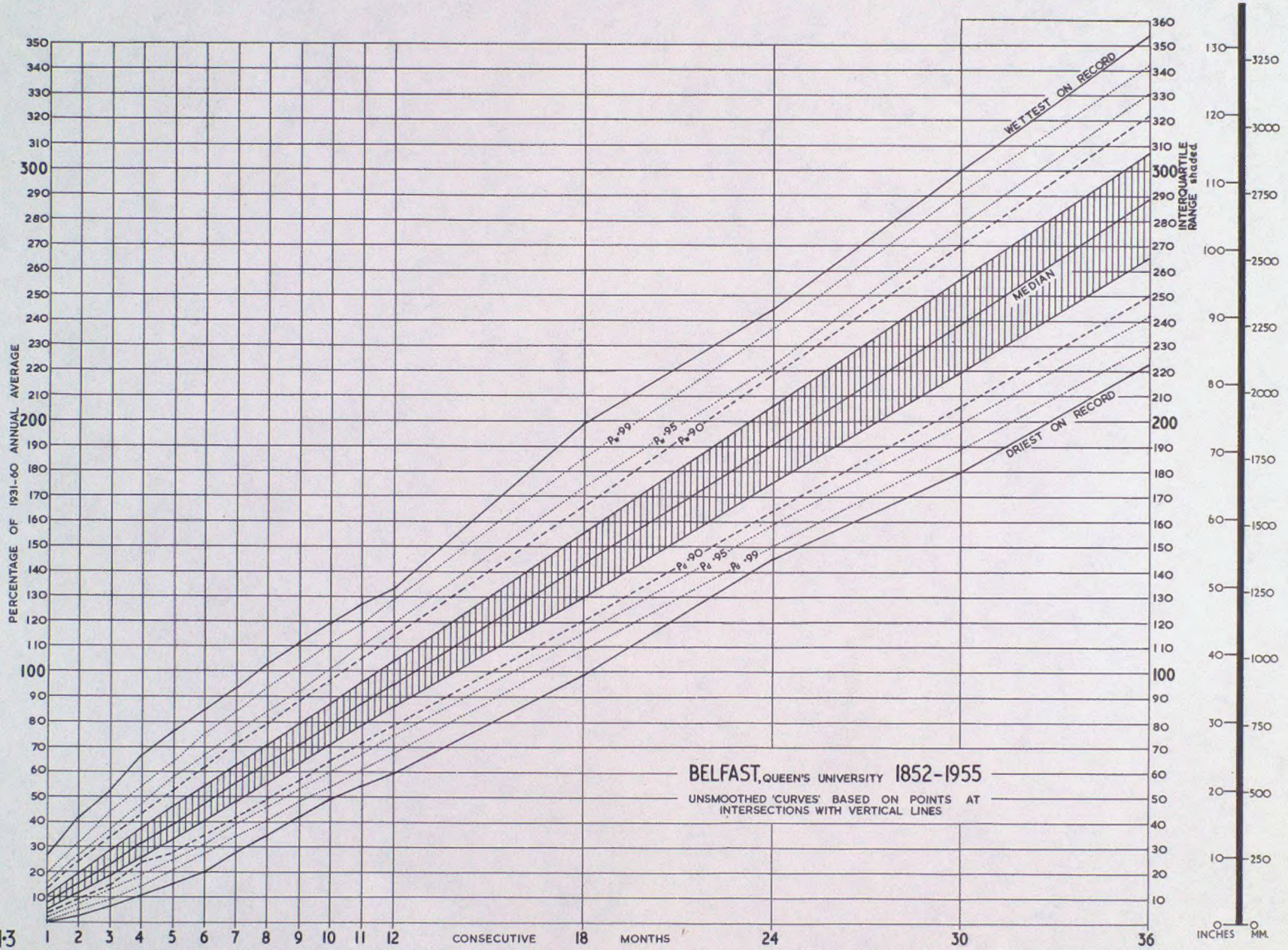

BELFAST, QUEEN'S UNIVERSITY 1852-1955
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
PERCENTAGE OF 1931-60 ANNUAL AVERAGE
INTERQUARTILE RANGE shaded
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
Pe·99
Pe·95
Pe·90
Pd·90
Pd·95
Pd·99
CONSECUTIVE MONTHS
INCHES
MM.

Fig.1·3

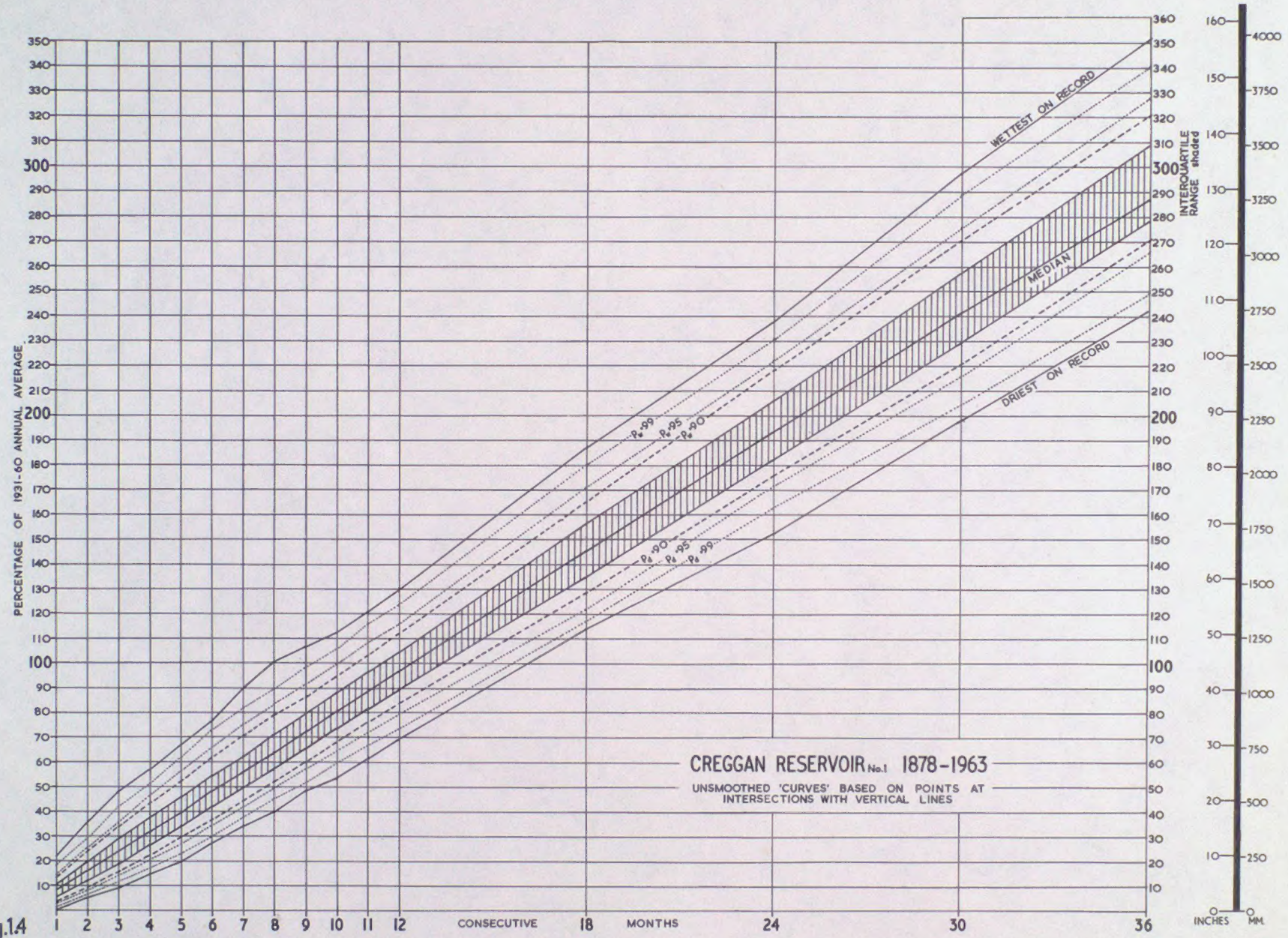

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
CONSECUTIVE MONTHS
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
P 99
P 95
P 90
INTERQUARTILE RANGE shaded
INCHES
MM
CREGGAN RESERVOIR No.1 1878-1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES

Fig.14

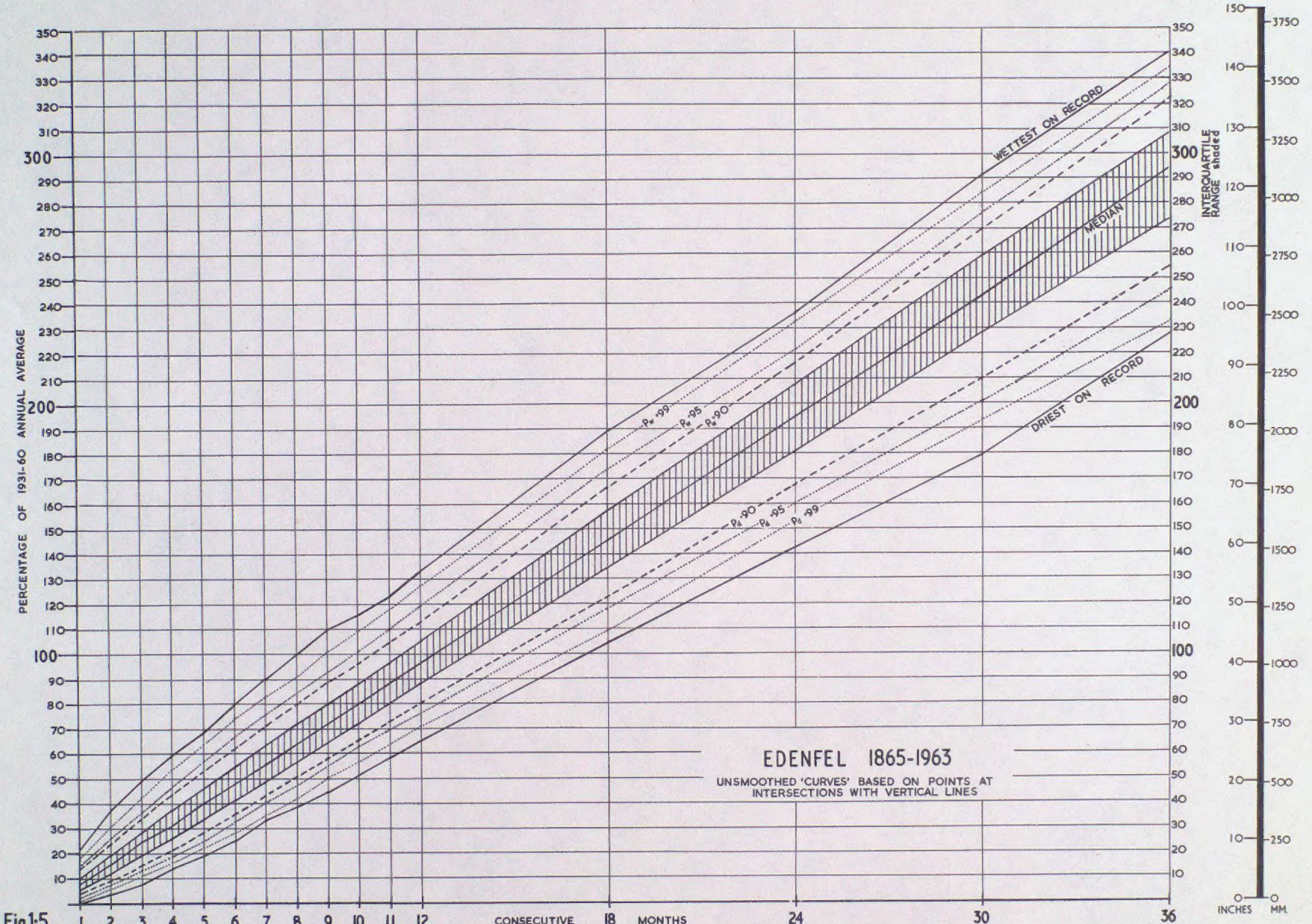

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
P_e ·99
P_e ·95
P_e ·90
P_e ·90
P_e ·95
P_e ·99
INTERQUARTILE RANGE shaded
EDENFEL 1865-1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
CONSECUTIVE MONTHS
INCHES
MM

Fig.1·5

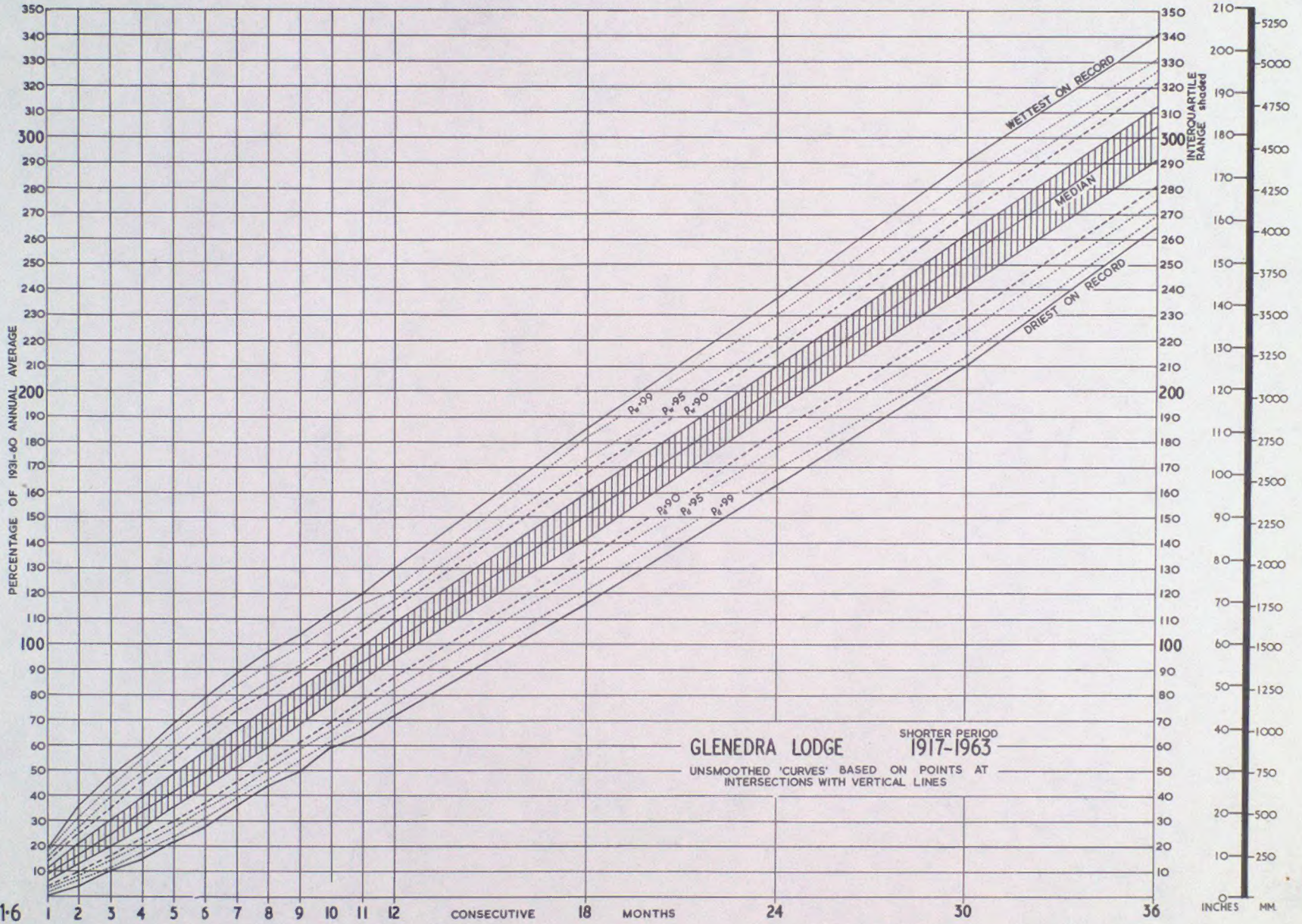

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
INTERQUARTILE RANGE shaded
P=.99
P=.95
P=.90
P=.90
P=.95
P=.99
GLENEDRA LODGE
SHORTER PERIOD 1917-1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
CONSECUTIVE MONTHS
INCHES
MM.

Fig.1·6

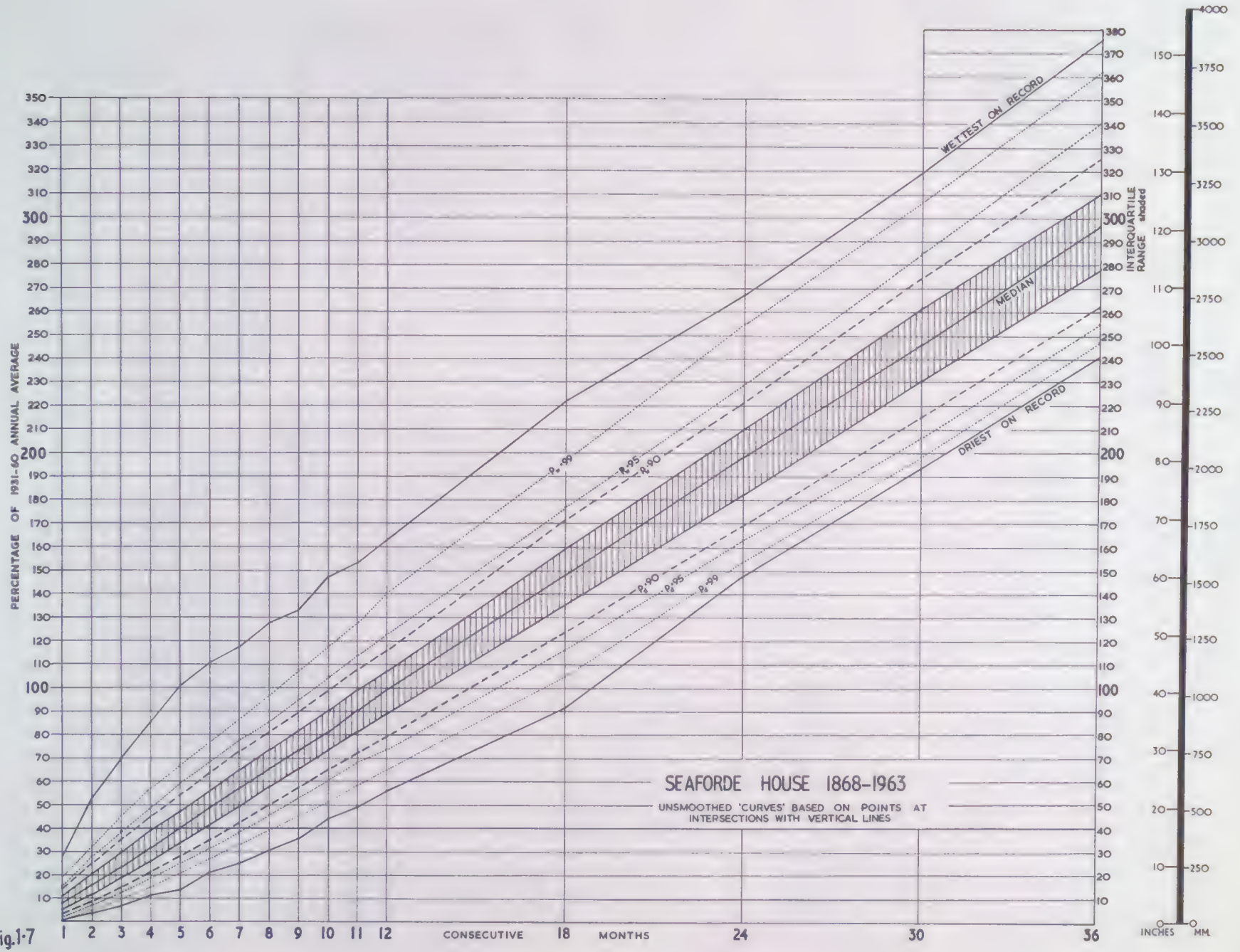

PERCENTAGE OF 1931–60 ANNUAL AVERAGE
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
P=99
P=95
P=90
P=90
P=95
P=99
INTERQUARTILE RANGE shaded
SEAFORDE HOUSE 1868–1963
UNSMOOTHED 'CURVES' BASED ON POINTS AT INTERSECTIONS WITH VERTICAL LINES
CONSECUTIVE MONTHS
INCHES
MM

Fig.1·7

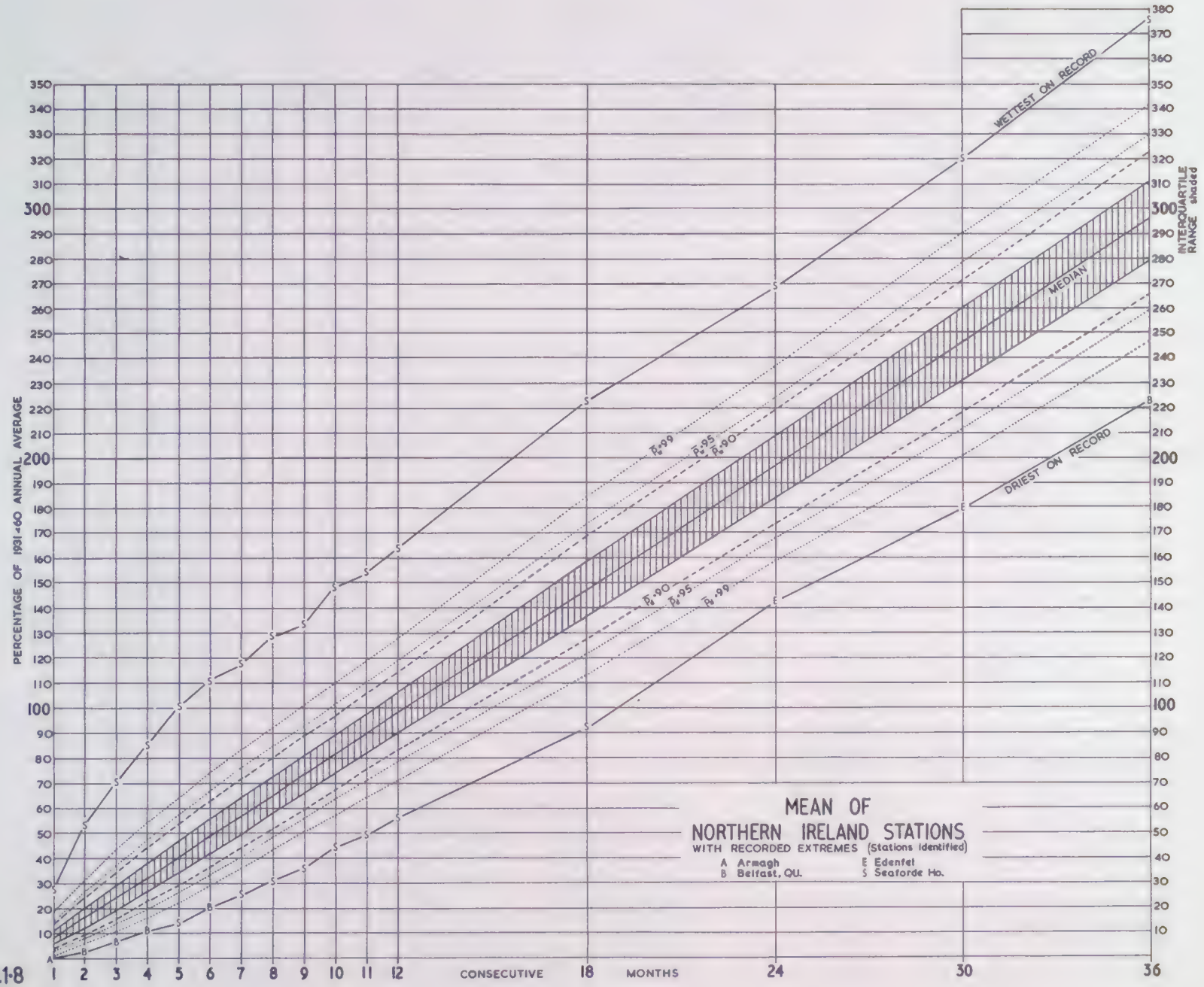

PERCENTAGE OF 1931-60 ANNUAL AVERAGE
CONSECUTIVE MONTHS
INTERQUARTILE RANGE shaded
WETTEST ON RECORD
MEDIAN
DRIEST ON RECORD
P_x·99
P_x·95
P_x·90
MEAN OF
NORTHERN IRELAND STATIONS
WITH RECORDED EXTREMES (Stations identified)
A Armagh
B Belfast, QU.
E Edenfel
S Seaforde Ho.

Fig.1-8

TABLE 2 - PERCENTAGE OF 1931-60 ANNUAL AVERAGE RAINFALL OVER CONSECUTIVE MONTHS FOR DEFINED PROBABILITIES OF OCCURRENCE

PROB		NUMBER OF CONSECUTIVE MONTHS															
		1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
		Percentage of station's own 1931-1960 annual average rainfall															
WETTEST	Armagh	22.8	42.0	52.6	60.7	66.5	77.8	88.7	99.3	105.4	113.0	116.9	132.8	187.9	243.0	298.2	340.1
	Ballymena,Harryville	24.5	38.5	58.2	66.7	73.6	83.8	92.5	99.2	106.9	117.7	127.8	138.9	200.8	247.6	311.9	361.7
	Belfast, Queen's Un.	26.6	41.5	52.3	66.3	76.0	84.6	93.1	102.7	111.4	119.4	126.9	133.0	199.1	244.5	300.4	354.1
	Creggan Res.No.1	21.5	35.1	47.8	57.0	66.9	76.3	89.9	100.2	106.8	112.4	120.8	130.0	186.4	237.4	297.2	351.3
	Edenfel	21.8	37.0	49.2	59.3	68.0	79.9	90.2	99.6	109.8	116.8	123.0	133.3	188.7	236.6	291.8	341.0
	Glenedra Lodge •	19.1	36.0	47.6	57.0	68.2	79.1	88.5	97.0	103.8	112.5	120.1	129.9	185.7	236.5	290.8	340.4
	Seaforde House ••	27.9	52.8	70.6	85.2	101.0	111.2	117.2	127.9	133.0	147.7	153.2	163.3	222.4	267.7	319.9	376.2
P_w ·99	Armagh	18.4	30.4	42.1	52.9	62.8	71.5	80.6	89.5	97.6	105.9	114.8	123.7	178.0	229.3	281.2	329.6
	Ballymena,Harryville	17.7	30.3	43.2	53.5	65.2	74.1	83.4	93.5	103.1	111.3	120.0	129.7	186.0	241.6	295.7	351.0
	Belfast, Queen's Un.	19.0	31.4	44.2	54.0	63.8	75.1	83.8	93.5	102.6	111.3	118.9	128.6	185.4	236.6	291.4	342.0
	Creggan Res.No.1	17.9	29.3	42.2	51.3	61.5	73.1	82.3	89.9	98.2	106.0	115.9	123.7	180.2	230.8	288.8	340.7
	Edenfel	18.0	30.6	42.7	53.6	63.5	74.0	83.0	91.1	100.5	109.0	117.6	127.4	182.0	232.8	284.7	334.3
	Glenedra Lodge	17.7	31.1	43.2	54.7	65.1	74.0	82.9	91.3	99.3	107.0	116.2	121.3	182.1	230.3	284.2	331.9
	Seaforde House ••	19.7	32.1	45.5	57.2	67.0	77.1	86.2	97.0	107.7	117.5	127.4	140.0	197.3	255.0	307.2	361.4
P_w ·95	Armagh	15.2	26.2	36.7	46.3	55.8	65.9	74.6	82.7	91.7	100.1	108.3	117.6	170.2	219.5	270.1	320.8
	Ballymena,Harryville	14.9	26.3	37.1	47.8	57.6	67.9	77.1	85.8	93.8	102.8	111.7	121.0	177.5	228.9	284.6	336.4
	Belfast, Queen's Un.	15.1	26.3	37.0	47.1	57.8	66.5	75.4	83.7	92.1	100.9	110.3	119.6	173.2	224.2	278.3	330.1
	Creggan Res.No.1	14.0	25.5	35.7	46.4	56.3	66.0	75.0	83.2	91.4	99.4	107.8	116.2	171.1	223.1	275.5	327.6
	Edenfel	14.7	26.1	36.7	46.8	56.7	66.9	75.7	84.2	92.5	101.1	109.9	119.0	172.3	221.9	276.9	326.8
	Glenedra Lodge	15.2	27.2	38.9	48.7	59.0	68.2	76.7	84.5	91.6	100.2	109.2	117.0	173.1	221.6	276.2	326.4
	Seaforde House	15.6	27.9	38.6	48.6	59.4	68.1	77.3	85.4	94.6	104.4	113.4	122.4	177.1	228.7	285.1	340.0
P_w ·90	Armagh	13.2	23.3	33.6	43.1	52.0	60.9	69.8	78.4	87.0	95.5	103.8	112.5	165.2	215.0	265.2	315.6
	Ballymena,Harryville	13.2	24.0	34.5	44.2	54.0	63.1	72.2	81.2	89.8	98.4	107.6	116.3	171.5	223.1	278.5	331.8
	Belfast, Queen's Un.	13.2	23.8	33.9	43.1	52.5	61.8	71.3	79.1	88.1	96.4	105.0	114.2	167.9	217.8	270.2	321.6
	Creggan Res.No.1	12.8	23.4	33.4	43.0	52.4	61.8	70.3	78.7	86.2	94.8	103.2	112.1	165.0	217.8	270.6	320.6
	Edenfel	12.9	23.3	33.7	43.4	52.9	62.2	71.2	79.8	88.3	96.4	104.5	112.9	166.7	216.6	269.1	320.5
	Glenedra Lodge	13.4	24.7	34.7	45.4	54.4	64.0	73.4	80.8	89.5	97.3	105.6	113.8	167.5	216.3	270.4	321.3
	Seaforde House	14.1	24.8	35.0	44.7	53.7	63.7	72.6	81.2	89.3	98.2	107.4	115.6	171.4	221.4	274.0	324.9
P_w ·75	Armagh	10.4	19.6	28.4	37.4	45.8	54.2	62.6	71.2	79.2	87.4	95.9	104.5	155.2	205.1	255.9	305.1
	Ballymena,Harryville	10.8	20.3	29.6	38.6	47.9	56.5	65.2	74.2	82.8	91.0	100.0	108.4	162.7	215.2	268.4	320.6
	Belfast, Queen's Un.	10.6	19.6	28.5	37.4	45.9	54.2	62.5	70.9	79.6	87.3	96.0	104.4	155.0	206.3	256.6	307.1
	Creggan Res.No.1	10.3	20.0	28.9	37.5	46.0	54.6	62.4	70.9	79.5	87.8	96.5	104.6	155.9	206.0	257.2	308.8
	Edenfel	10.5	19.7	28.5	37.4	46.3	54.6	63.5	71.6	79.4	88.0	96.4	105.3	157.5	207.6	258.7	309.2
	Glenedra Lodge	11.1	20.7	30.1	38.8	48.5	57.5	66.1	74.5	82.8	91.4	99.2	107.9	160.1	210.2	262.2	312.3
	Seaforde House	10.9	20.3	29.5	38.3	47.2	55.9	64.5	73.2	81.6	90.3	98.5	107.0	159.4	209.6	261.5	310.6
MEDIAN	Armagh	7.7	15.6	23.7	31.9	40.1	48.0	56.0	64.2	72.3	80.5	88.2	95.9	144.2	193.9	243.1	291.8
	Ballymena,Harryville	8.4	16.7	25.2	33.7	42.0	50.2	58.7	67.0	75.8	84.2	92.6	100.9	151.8	203.9	254.6	306.3
	Belfast, Queen's Un.	7.5	15.4	23.1	31.3	39.3	47.3	55.4	63.4	70.9	79.0	87.0	94.8	142.7	190.6	238.7	288.4
	Creggan Res.No.1	7.8	15.9	23.9	31.9	39.7	47.7	55.9	64.2	72.2	80.2	88.3	96.4	145.4	192.9	241.2	286.8
	Edenfel	7.8	15.7	23.9	31.8	40.1	47.8	55.9	63.9	72.3	80.2	88.4	96.6	145.6	195.3	244.5	294.7
	Glenedra Lodge	8.2	16.5	24.7	33.6	41.6	49.7	58.5	67.2	75.9	84.7	93.0	100.9	151.0	202.3	252.7	303.9
	Seaforde House	7.7	15.8	23.7	32.2	40.6	48.9	57.1	65.3	73.6	81.6	90.7	98.8	147.8	197.9	246.4	297.0
P_d ·75	Armagh	5.2	12.1	19.5	26.6	33.9	41.7	49.2	57.3	65.4	73.1	81.1	89.0	134.3	181.7	228.9	276.4
	Ballymena,Harryville	5.8	12.9	20.6	28.5	36.3	44.9	52.7	61.0	69.3	77.3	85.9	94.1	141.9	189.9	238.6	287.8
	Belfast, Queen's Un.	4.9	11.7	18.7	25.8	33.1	40.5	47.7	55.5	63.4	70.8	78.5	86.1	129.8	175.0	219.3	265.0
	Creggan Res.No.1	5.5	12.0	19.2	26.6	34.3	42.1	49.6	57.3	65.4	73.5	81.3	89.4	134.8	182.3	229.3	277.7
	Edenfel	5.4	11.9	19.0	26.2	33.6	41.3	48.7	56.4	64.4	72.2	80.2	88.5	134.0	181.1	228.3	274.5
	Glenedra Lodge	5.5	12.5	20.0	27.0	35.2	42.9	51.1	59.8	68.4	77.3	86.0	94.3	141.8	193.1	241.2	290.9
	Seaforde House	5.0	11.8	19.2	26.1	33.9	41.5	49.4	57.4	65.1	73.3	81.3	89.1	135.1	182.4	230.3	277.9
P_d ·90	Armagh	3.4	9.4	15.7	22.4	29.3	36.0	43.6	51.3	58.7	66.8	74.3	82.4	127.2	172.2	216.6	261.5
	Ballymena,Harryville	4.0	10.3	16.6	23.9	31.5	38.6	46.8	54.7	63.2	71.7	80.0	88.1	132.6	181.3	226.9	275.8
	Belfast, Queen's Un.	3.4	8.8	14.7	24.1	27.6	34.6	41.7	48.9	56.5	64.5	71.8	78.5	120.4	163.8	205.7	250.3
	Creggan Res.No.1	3.6	9.6	15.6	22.4	30.0	36.6	44.1	52.1	60.1	67.9	76.0	83.3	127.8	175.3	220.8	270.1
	Edenfel	3.6	9.2	15.2	21.8	28.5	36.0	43.3	51.2	58.4	66.1	73.4	80.5	122.6	167.7	210.3	255.2
	Glenedra Lodge	3.7	9.7	16.0	22.8	29.8	37.3	45.2	53.1	61.1	69.5	77.7	87.0	133.2	183.7	229.7	280.9
	Seaforde House	3.2	8.7	14.8	21.4	28.1	34.9	42.3	50.1	57.5	64.9	72.2	79.4	123.5	169.1	215.3	262.5
P_d ·95	Armagh	2.6	7.8	13.5	19.3	26.3	33.4	40.6	47.7	55.2	62.8	70.0	77.2	122.0	167.2	210.7	256.1
	Ballymena,Harryville	3.0	8.9	14.7	21.2	28.4	36.3	43.4	51.4	59.1	67.1	75.1	83.7	127.1	175.4	220.3	269.6
	Belfast, Queen's Un.	2.4	7.5	13.0	18.4	24.7	31.2	38.9	46.0	52.9	60.1	67.5	74.7	115.3	158.8	199.6	242.2
	Creggan Res.No.1	2.9	8.2	14.2	20.7	26.9	34.2	42.0	49.9	57.4	64.7	72.3	79.8	122.1	171.6	215.7	265.6
	Edenfel	2.6	7.9	13.6	19.2	25.4	32.9	40.0	47.7	55.6	63.0	69.8	76.6	118.0	160.7	202.0	246.5
	Glenedra Lodge	2.8	8.0	14.0	20.4	27.4	34.9	41.8	49.9	58.3	65.7	74.0	82.4	129.4	177.7	223.6	275.3
	Seaforde House	2.4	7.1	12.6	18.5	25.2	31.9	38.5	45.8	52.9	60.3	68.0	73.3	116.7	163.4	207.0	255.5
P_d ·99	Armagh	.8	5.2	10.2	15.5	22.1	27.5	35.2	41.9	49.5	55.3	63.0	69.4	109.8	158.6	198.9	243.5
	Ballymena,Harryville	1.5	6.4	11.7	18.1	24.1	30.9	38.6	46.5	54.4	60.8	67.6	74.1	118.2	165.6	208.9	254.5
	Belfast, Queen's Un.	.8	4.9	9.2	14.2	21.0	27.4	33.7	40.2	47.7	53.9	60.8	67.5	108.4	150.5	189.2	230.2
	Creggan Res.No.1	1.7	6.5	11.4	17.1	23.0	30.1	37.6	45.1	51.5	59.6	66.8	73.3	116.5	162.6	204.3	248.7
	Edenfel	1.2	6.1	11.1	16.6	22.6	28.1	35.3	42.3	50.6	56.6	63.7	71.1	109.2	153.3	192.9	233.0
	Glenedra Lodge	1.4	6.5	11.2	17.5	23.3	30.8	38.7	46.2	53.8	61.6	69.3	76.1	120.8	169.4	214.2	269.4
	Seaforde House	1.0	4.7	9.5	15.0	20.7	27.2	32.9	39.2	45.1	51.7	58.5	64.8	105.0	154.1	198.5	247.5
DRIEST	Armagh	.1	3.2	6.7	10.9	15.0	23.6	28.2	33.5	41.1	48.2	53.1	58.4	99.6	144.4	191.4	233.2
	Ballymena,Harryville	.5	4.3	8.4	13.4	19.1	26.2	32.8	36.9	43.6	54.1	59.0	64.5	109.8	156.9	202.7	246.4
	Belfast, Queen's Un.	.2	2.5	6.3	10.4	15.2	20.1	27.4	34.2	42.1	49.5	54.4	59.3	98.6	145.4	179.7	222.6
	Creggan Res.No.1	.6	5.0	9.0	14.3	19.8	27.2	34.1	39.9	47.9	53.6	61.0	69.1	114.2	152.4	197.6	242.2
	Edenfel	.4	3.8	7.6	13.3	18.7	25.0	33.1	38.7	44.4	51.3	57.9	64.8	104.4	142.4	179.4	227.9
	Glenedra Lodge	.3	3.6	10.1	14.7	21.4	27.2	35.7	43.7	49.8	59.6	63.6	71.4	115.9	162.6	210.4	264.7
	Seaforde House	.2	2.8	6.9	11.5	13.4	21.5	25.0	31.0	36.0	44.1	49.2	55.9	91.3	147.5	193.6	241.3

INTERQUARTILE RANGE

kw

• Extreme value for Glenedra Lodge low as shorter period of record used (see text)
•• Extreme values for Seaforde House high due to exceptional year (see text)

19. FIGURE 1.8 has been drawn, for values between $p_w = .99$ and $p_d = .99$, using the arithmetic mean of the seven stations' relevant point values. Thus, this graph may be said to represent a general picture, reasonably applicable to any site in Northern Ireland. (NB: It is not appropriate to include an absolute scale on this graph.) Consideration was given to the averaging of the extreme values, but this was rejected in favour of showing the observed extreme of all seven stations, and identifying the station. The predominence of values from Seaforde House is the subject of a special comment later in this paper, as are the Glenedra Lodge data.

20. Whilst FIGURES 1.1 to 1.7 are designed to demonstrate the results in graphical form, the scale which has had to be used is rather small. It is, therefore, thought worth while to reproduce the data upon which the graphs are drawn in tabular form: TABLE 2 does this and also provides a ready means of assessing the variation between various stations' values, without resorting to further statistical work (e.g. the determination of the standard deviation, σ— , for each value of p in each of the consecutive month columns. It will be seen that the percentage of annual average values have been calculated to one decimal place: this is a slight refinement on Glasspoole's data (where values were to the nearest one percent), primarily to give greater detail in the lower groups of consecutive months. As may be expected, the variation increases (in terms of numerical values) with the increase in the number of consecutive months, and also within those columns at the "extreme" ends. However, it is considered that the variation is small enough to warrant the adoption of the seven-station-means used in determining the data for FIGURE 1.8, and as set out in TABLE 3.

TABLE 3 - NORTHERN IRELAND MEAN AND EXTREME VALUES
Percent of 1931-60 annual average rainfall

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
Highest recorded	27.9 S	52.8 S	70.6 S	85.2 S	101.0 S	111.2 S	117.2 S	127.9 S	133.0 S	147.7 S	153.2 S	163.3 S	222.4 S	267.7 S	319.9 S	376.2 S
p_w .99	18.3	30.7	43.3	53.9	64.1	74.1	83.2	92.3	101.3	109.7	118.7	127.8	184.4	236.7	290.5	341.6
p_w .95	15.0	26.5	37.2	47.4	57.5	67.1	76.0	84.2	92.5	101.3	110.1	119.0	173.5	224.0	278.1	329.7
p_w .90	13.3	23.9	34.1	43.8	53.1	62.5	71.5	79.9	88.3	96.7	105.3	113.9	167.9	218.3	271.1	322.3
Interquartile Range p_w .75	10.7	20.0	29.1	37.9	46.8	55.4	63.8	72.4	80.7	89.0	97.5	106.0	158.0	208.6	260.1	310.5
Median	7.9	15.9	24.0	32.3	40.5	48.5	56.8	65.0	73.3	81.5	89.7	97.8	146.9	196.7	245.9	295.6
p_d .75	5.3	12.1	19.5	26.7	34.3	42.1	49.8	57.8	65.9	73.9	82.0	90.1	136.0	183.6	230.8	278.6
p_d .90	3.6	9.4	15.5	22.7	29.3	36.3	43.9	51.6	59.4	67.3	75.1	82.7	126.8	173.3	217.9	265.2
p_d .95	2.7	7.9	13.7	19.7	26.3	33.5	40.7	48.3	55.9	63.4	71.0	78.2	121.5	167.8	211.3	258.7
p_d .99	1.2	5.8	10.6	16.3	22.4	28.9	36.0	43.1	50.4	57.1	64.2	70.9	112.6	159.2	201.0	246.7
Lowest recorded	.1 A	2.5 B	6.3 B	10.4 B	13.4 S	20.1 B	25.0 S	31.0 S	36.0 S	44.1 S	49.2 S	55.9 S	91.3 S	142.4 E	191.4 E	222.6 B

HIGHEST & LOWEST STATIONS: A Armagh B Belfast (QU) E Edenfel S Seaforde

21. As an Appendix (TABLES 6.1 to 6.7), extracts from the basic computer print-out are included, revealing the actual values and actual periods, for the extreme ends of each stations' data.

LIMITATION OF SHORTER PERIOD DATA

22. Data are provided at one month intervals up to 12 months, commencing at "one consecutive month". Unlike Glasspoole's works which showed graphs commencing at "0 consecutive months", the present paper recommends caution when utilizing the results at the low end of graphs and tables. It should be remembered that the basic data were calendar month totals. Thus, taking the first set of values ("one consecutive month") it needs to be remembered that the data cannot be taken as being equivalent to "four consecutive weeks" (or "28 consecutive days"), for it is almost certain that a wetter, or drier, 4-consecutive-week period exists in practice. Similarly, data for two-consecutive-months' period are not strictly representative of 8- or 9-consecutive-weeks' data. No work has yet been done to determine the extent of this limitation on the use of data included for the shorter end of the consecutive month scale: it is suggested, somewhat arbitrarily, that periods of 3 consecutive months

or less are unrepresentative for the above reason.

SPECIAL NOTES ON GLENEDRA AND SEAFORDE DATA

23. The shorter period of record for GLENEDRA LODGE has produced slightly skew results, as may be expected. In the particular 47 years of record, values approaching other stations' extreme wettest (over their longer periods) were not recorded. This skewness is much less noticeable at the $p_w = .99$ level. However, the dry year of 1933 did fall within the period used, so that the extreme driest years are not noticeably out of line with other stations' data. Whilst the high extreme wettest values from Seaforde (see para.24 below) might have off-set the low value from Glenedra Lodge in determining the all-station "mean extreme" this discrepancy was one of the factors leading to the omission of such data (see also paras. 19-20).

24. The very high values at the wet end of the SEAFORDE HOUSE series and some low values at the dry end, at first brought this stations' data under a cloud of suspicion. However, further investigation revealed the fact that data from the Newtownards area (north of Seaforde) for the worst year (1876) reflected the quite abnormally high rainfall over Co. Down, and it is now felt that the Seaforde House data are acceptable, but illustrative of a very rare occurrence.

25. FIGURE 2 utilizing arithmetic probability paper, sets out the curves for 6, 12, 24 and 36 consecutive months between probability values $p_w = .99$ and $p_d = .99$ obtained using the mean Northern Ireland values from TABLE 3. "Difference from median value" has been used to provide symetrical patterns to enable the four separate consecutive month period curves to be drawn on one graph: the absolute percentage values are not significant for this particular assessment. Each curve is extended to the probability value $p_w = .9999$ and $p_d = .9999$ (adopted somewhat arbitrarily), against which values have been plotted, respectively the wettest and driest on record, again from TABLE 3, the station being identified. It will be seen that at the dry end the various extremes do not materially distort the trend of the curves. At the wet end, however, the Seaforde House extremes for 6, 12 and 24 consecutive months do materially distort the curves, but the value for 36 consecutive months fits reasonably well. At the wet end of this graph, the second-wettest-on-record values have been added as X-plots (where B = Belfast, and B_H = Ballymena,Harryville), and these show an improvement in "goodness of fit," although the values for 12 and 24 consecutive months are somewhat lower than the trend of the curve might lead one to expect. Thus, FIGURE 2 illustrates the quite abnormal picture given by taking the Seaforde House wettest on record for consecutive month periods under 36 months: the probability of the observed extremes is therefore greater than .9999.

GEOGRAPHICAL VARIATION OVER NORTHERN IRELAND

26. In Glasspoole's first paper, he presented some of his extreme driest and wettest consecutive month data in map form, covering the British Isles. The potentially misleading picture given by the use of the observed extreme values has been commented upon from time to time throughout this paper.

27. Maps are included (as FIGURES 3.1 to 3.5) using the data from the seven stations given in TABLE 2, for 3, 6, 12, 24 and 36 consecutive months respectively, and for values of p_w and p_d of .99, .95, .90 and .75. Notwithstanding criticism of the presentation of the observed extremes in map form, these maps have again been included.

28. On each map each station's value (percentage of 1931-60 annual average rainfall) has been included, but for the tails of the Glenedra Lodge sequence the values appear in brackets (see para.23). Isopercental lines have been drawn using the plotted data, and taking into account the limitation of applicability of bracketed

Glenedra Lodge values. Clearly, with only seven plots per map, the drawing of isopercental lines involved subjective approaches, and some maps can be slightly re-drawn in a different manner. Little attempt has been made to estimate the course of lines over areas barren of data, notably the southwest and northeast corners of the Province.

29. The additional data available from Belfast now further restrict the area of unusual wetness over County Down (Seaforde-Newtownards area) when the extreme maps in this paper are compared with the original versions published by Glasspoole.

30. Although specific reference has been made to the possible use of a general Northern Ireland site value, broadly applicable to any site or small catchment, it is possible to extract values from these maps, and for any consecutive month period for which a map is not given (in excess of three consecutive months) then linear interpolation between values obtained from published maps can be adopted: alternatively, the reader may extract the basic data (appropriate consecutive month period, and appropriate probability) from TABLE 2, and himself draw a map.

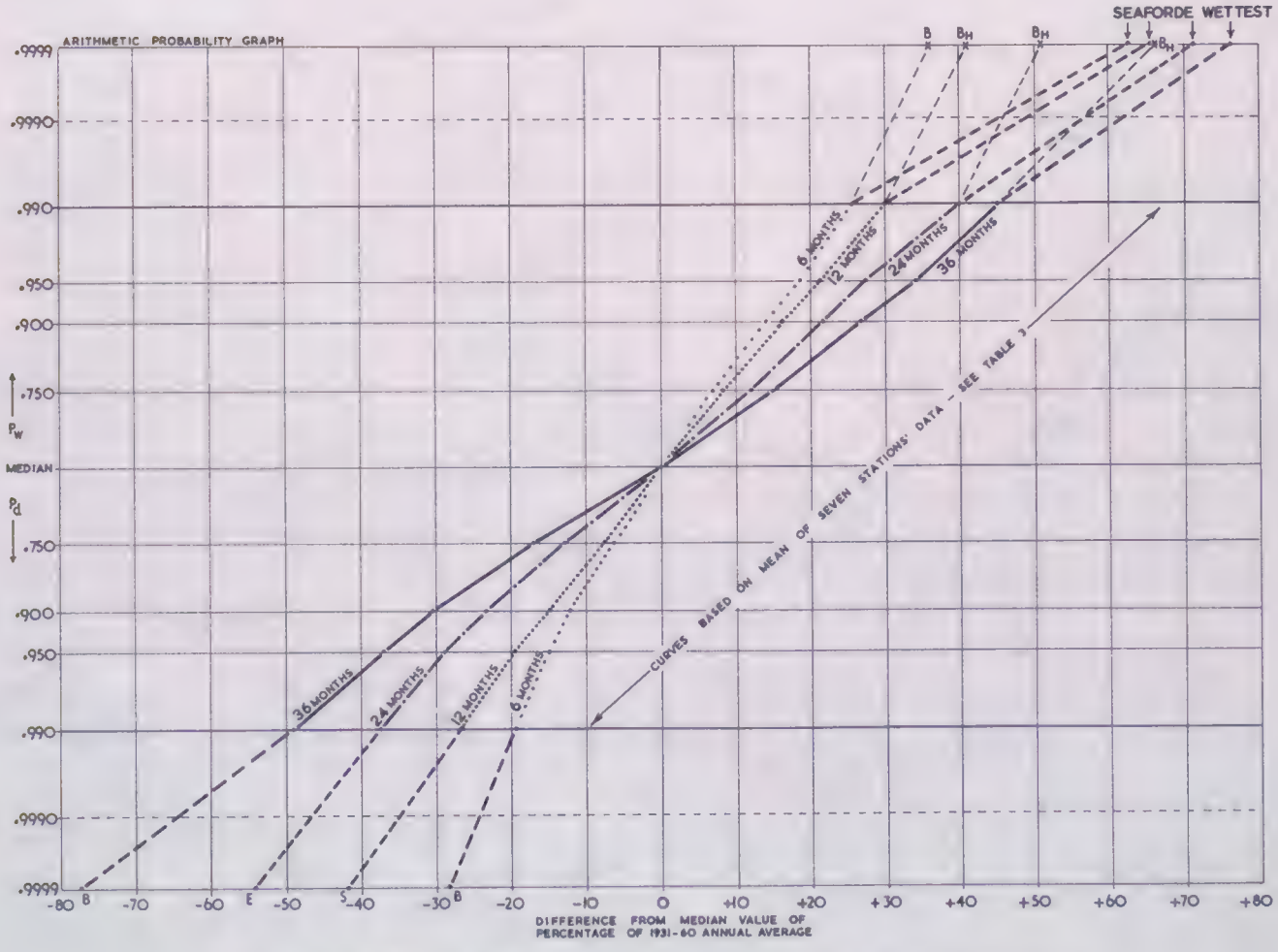
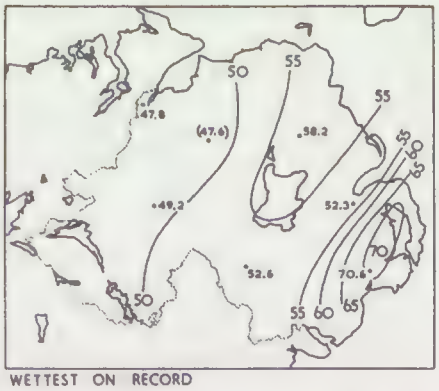
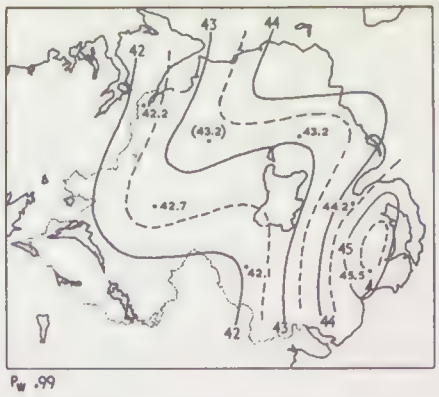


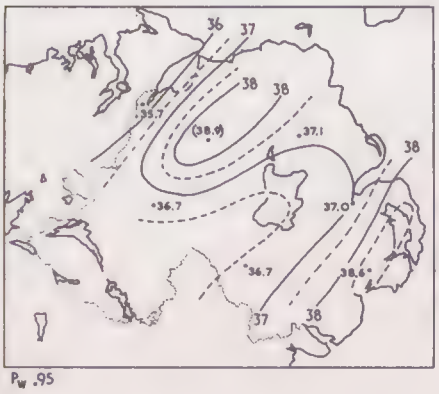
Fig. 2 SELECTED N. IRELAND MEAN VALUES EXTRAPOLATED TO OBSERVED EXTREMES cf. Seaforde House extreme wettest.



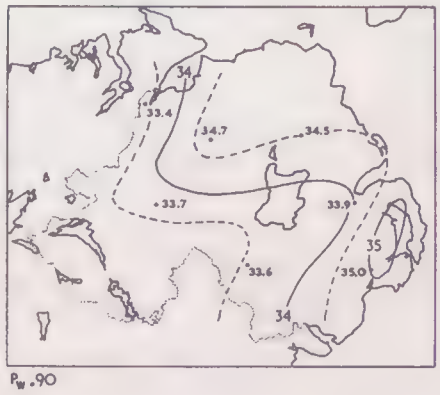
WETTEST ON RECORD



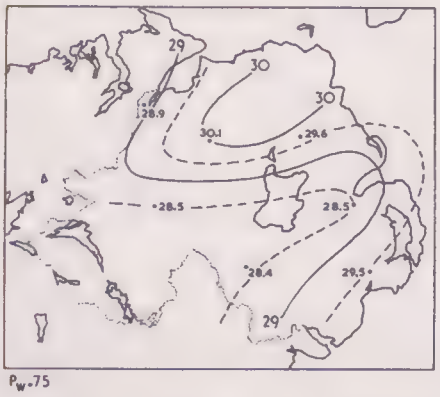
P_w .99



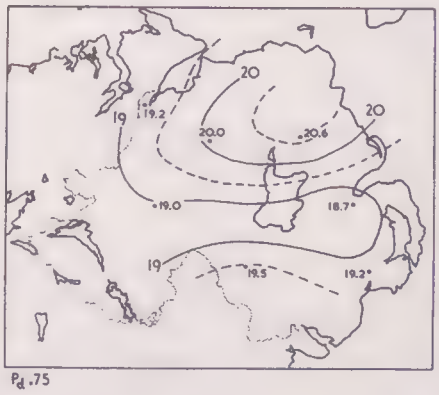
P_w .95



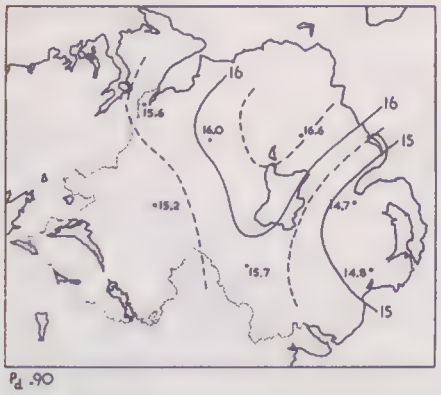
P_w .90



P_w .75



P_d .75



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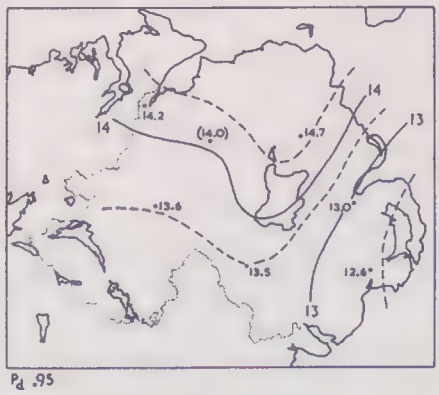
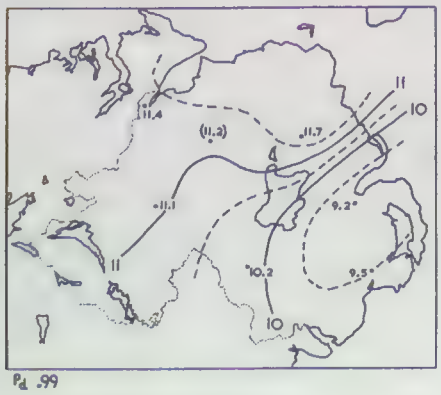
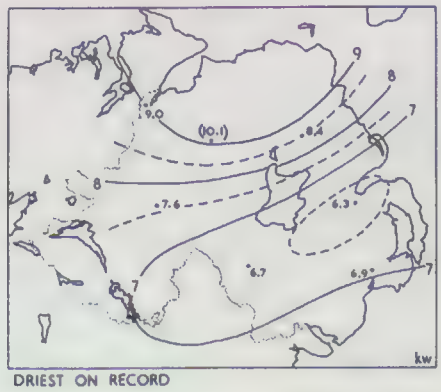


P_d .95

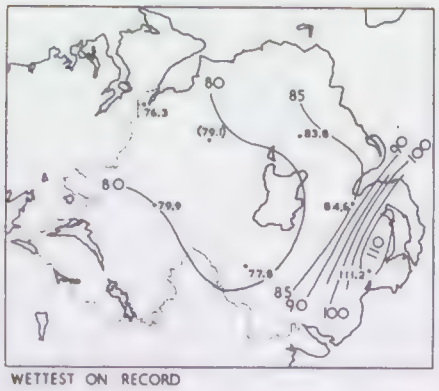


P_d .99

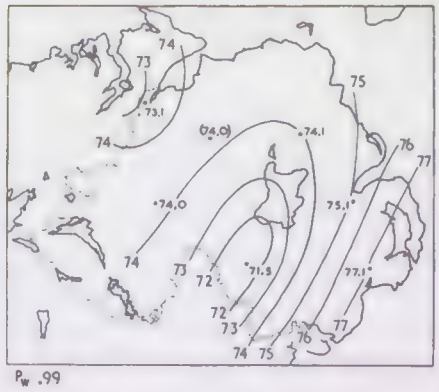


DRIEST ON RECORD

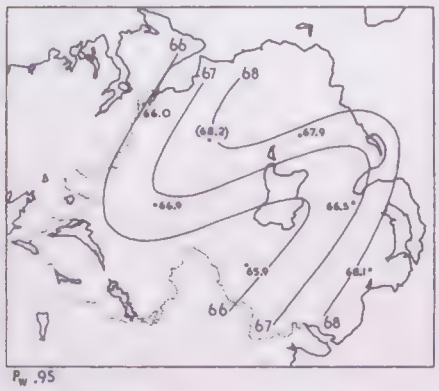
Fig. 3.1
THREE CONSECUTIVE MONTHS
PERCENT OF 1931-60 ANNUAL AVERAGE RAINFALL.



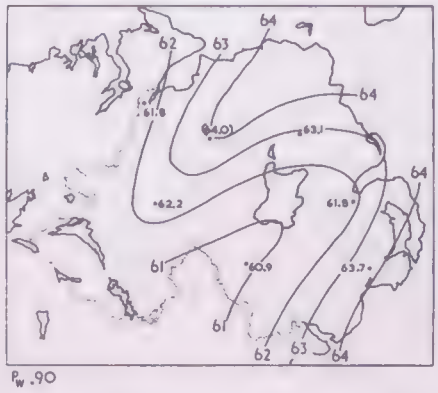
WETTEST ON RECORD



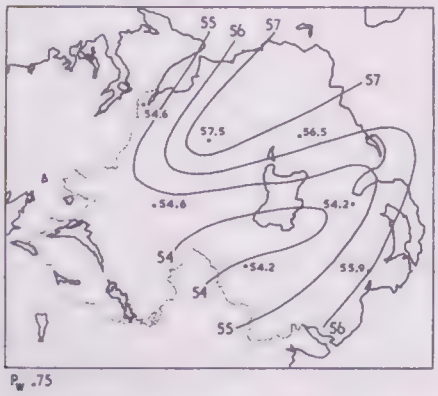
P_w .99



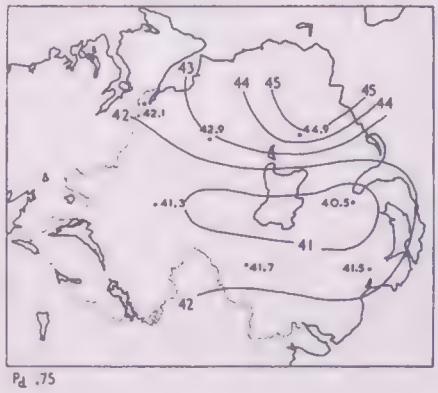
P_w .95



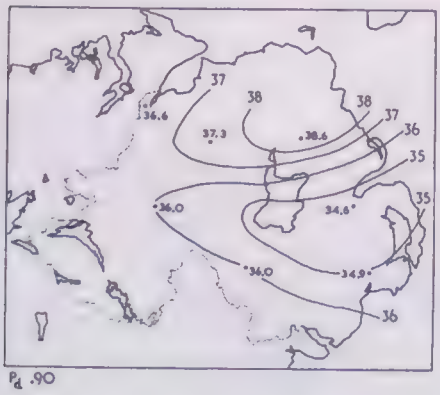
P_w .90



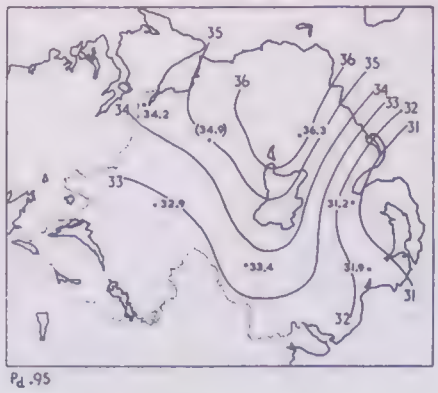
P_w .75



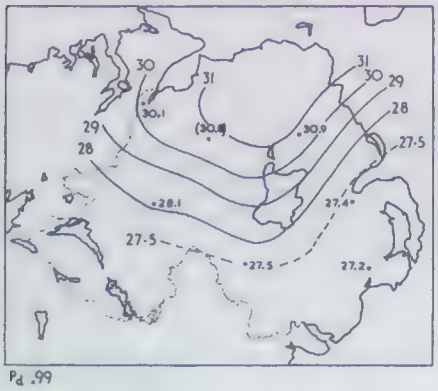
P_d .75



P_d .90



P_d .95



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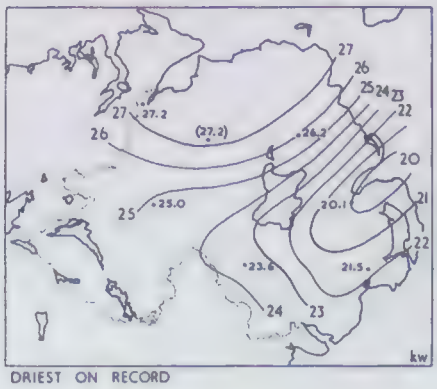
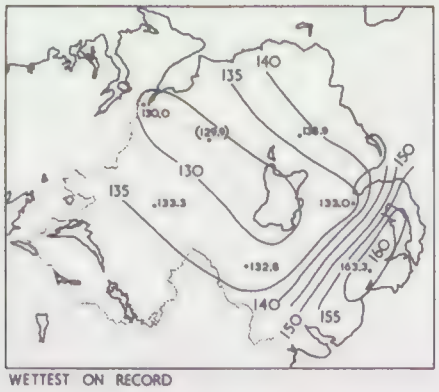


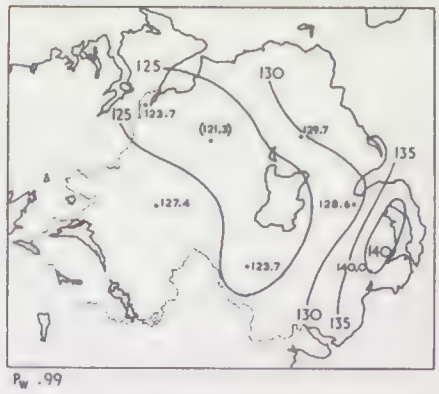
DRIEST ON RECORD

kw

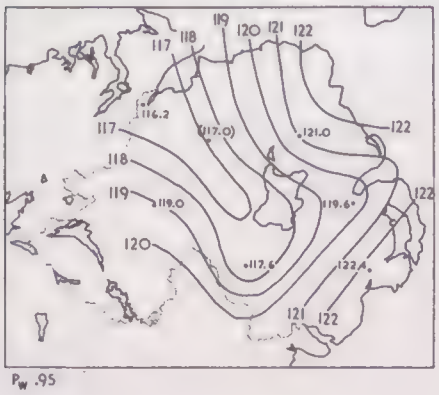
Fig.3.2
SIX CONSECUTIVE MONTHS
PERCENT OF 1931-60 ANNUAL AVERAGE RAINFALL



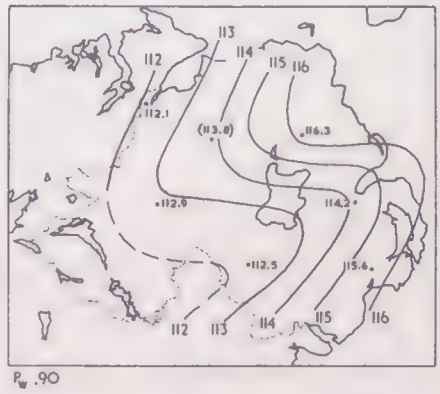
WETTEST ON RECORD



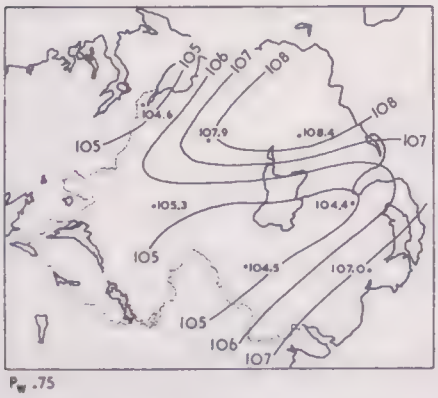
P_w .99



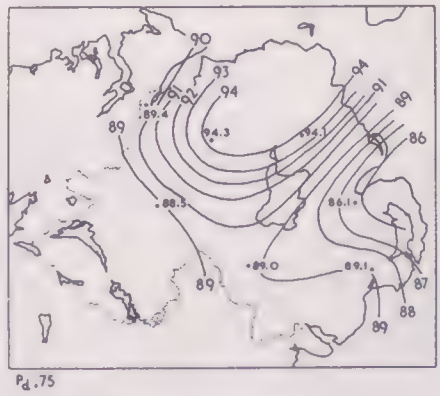
P_w .95



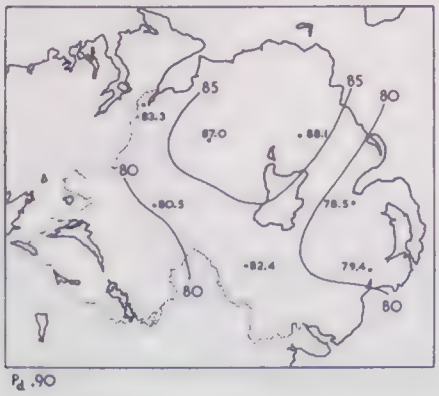
P_w .90



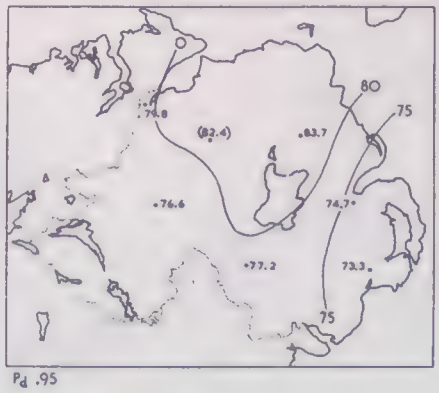
P_w .75



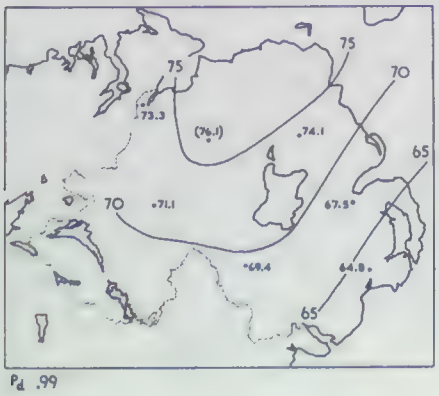
P_d .75



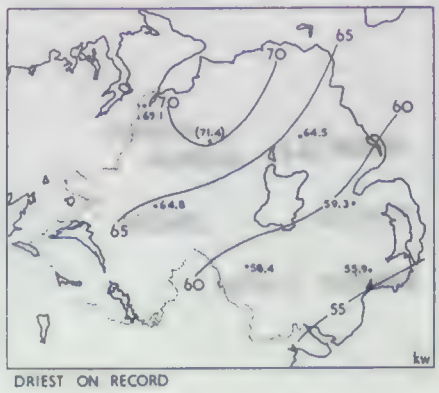
P_d .90



P_d .95

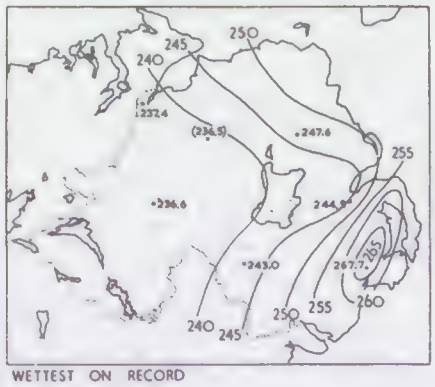


P_d .99

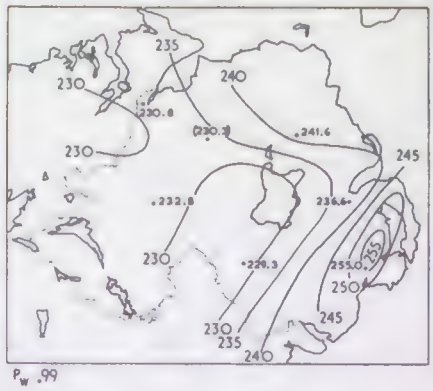


DRIEST ON RECORD

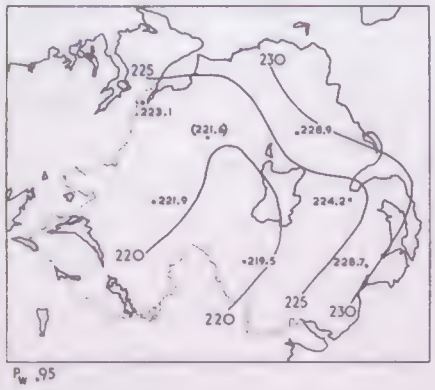
Fig. 3.3
TWELVE CONSECUTIVE MONTHS
PERCENT OF 1931-60 ANNUAL AVERAGE RAINFALL



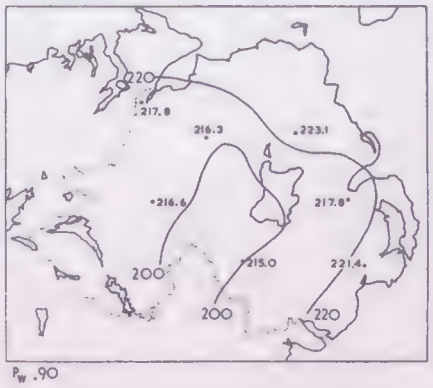
WETTEST ON RECORD



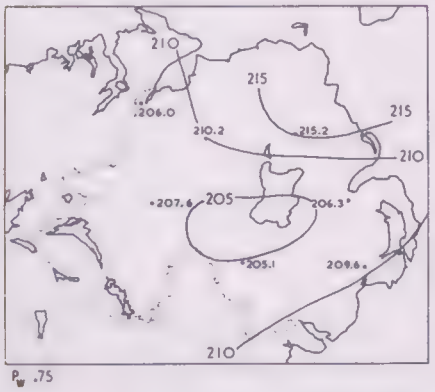
P_w .99



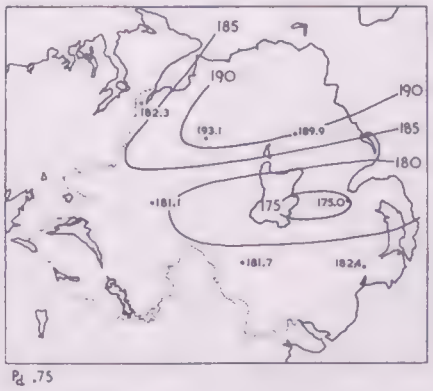
P_w .95



P_w .90



P_w .75



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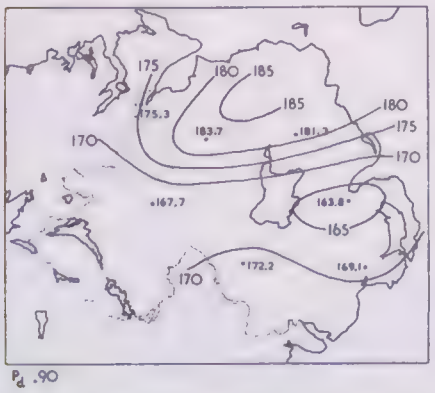

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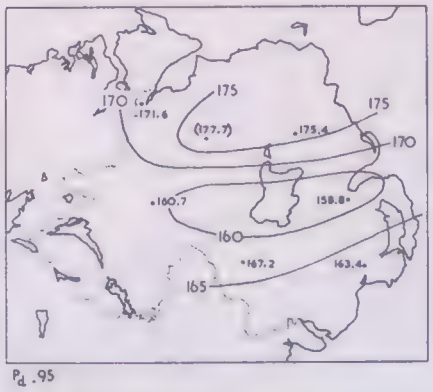
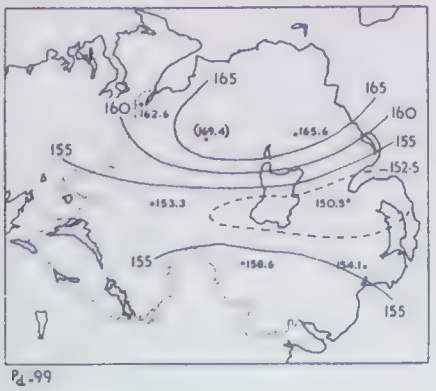
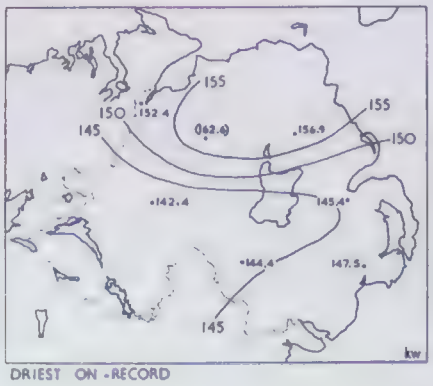


P_d .95

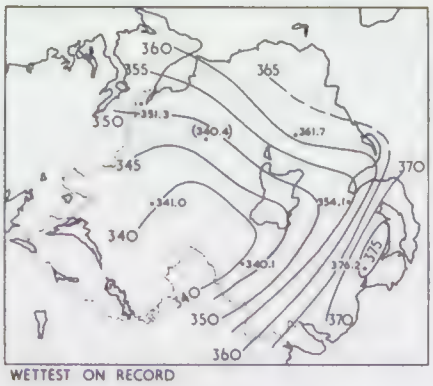


P_d .99

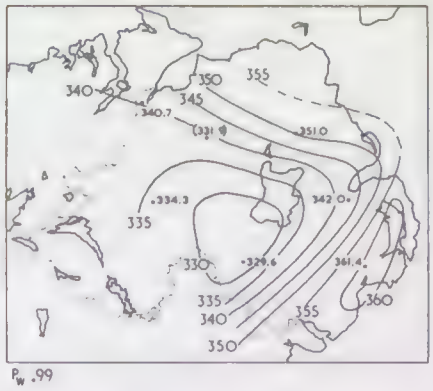


DRIEST ON RECORD

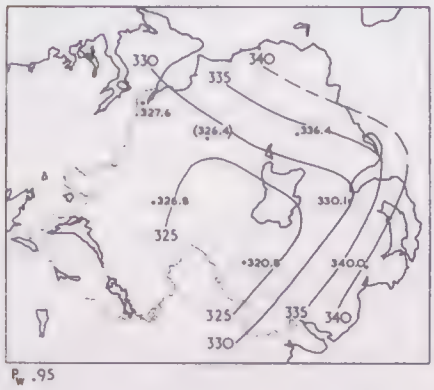
Fig. 3.4
TWENTY-FOUR CONSECUTIVE MONTHS
PERCENT OF 1931-60 ANNUAL AVERAGE RAINFALL



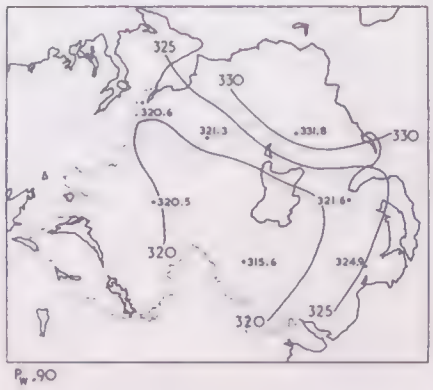
WETTEST ON RECORD



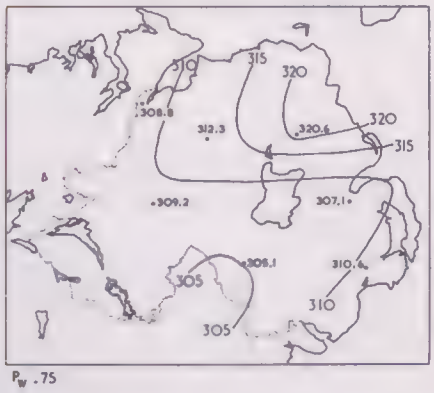
P_w .99



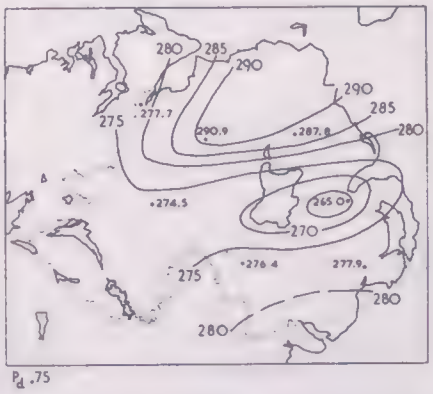
P_w .95



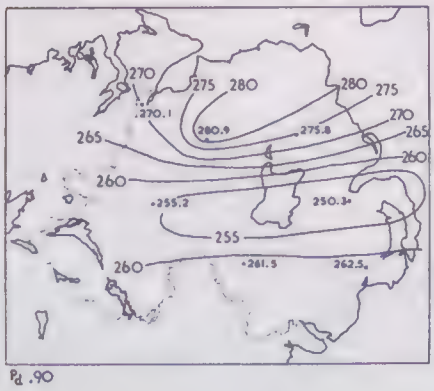
P_w .90



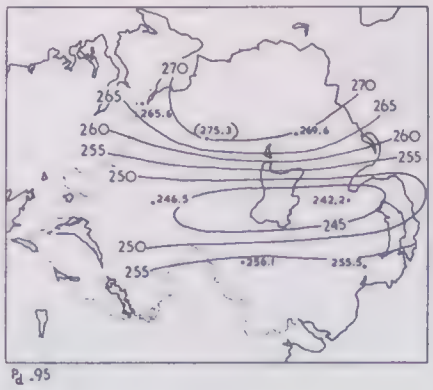
P_w .75



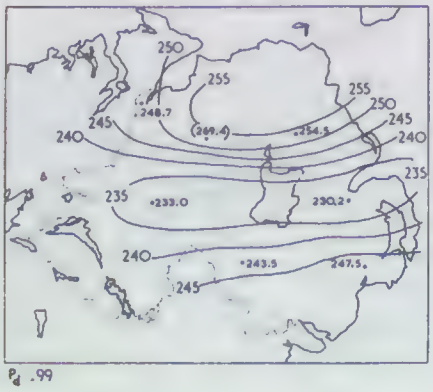
P_d .75



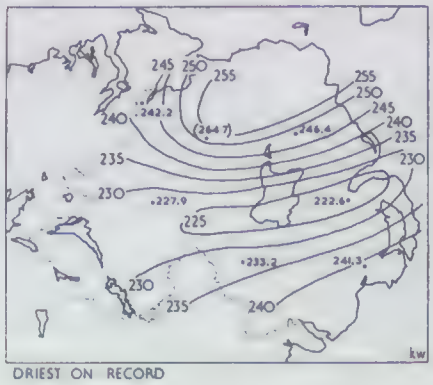
P_d .90



P_d .95



P_d .99



DRIEST ON RECORD

Fig. 3.5
THIRTY-SIX CONSECUTIVE MONTHS
PERCENT OF 1931-60 ANNUAL AVERAGE RAINFALL

USE OF DATA FOR RESERVOIR DESIGN PURPOSES

31. One of the parameters considered by engineers in design calculations for reservoirs is the rainfall over dry periods. In Northern Ireland, use of the Lapworth Diagram[6] has more recently been supplemented by requests for the driest one, two and three consecutive calendar years on record to be provided either from available data or estimated. This paper now offers rather better information in that the shortcomings of the use of calendar years are overcome, and the data further improved by the introduction of probabilities. Thus, when considering relative costs of water supply projects of various potential reservoir sizes, the engineer and his employing water authority can consider what "odds" they wish to insure against.

32. The data in this paper are, of course, based upon "point" rainfall values: that is, rainfall observed at the site of the raingauge, which is not applicable to an area. However, as the analysis has been conducted in terms of percentage of annual average rainfall, rather than absolute amounts, it is suggested that the percentage values now available can be used over small catchments, say, up to 7,000 acres (approx. 2,850 hectares or 10 square miles) provided that the 1931-60 annual average rainfall for the whole catchment is used.

33. If the contention (para.18) that for periods of consecutive months of not less than six the data may be represented by straight line graphs and that (paras.19-20) the Northern Ireland mean values between $P_w = .99$ and $P_d = .99$ inclusive, may be representative of any Northern Ireland site, is accepted, then the equation for any defined probability can be used. TABLE 4 sets out the straight line equation for each of the probabilities (but not for the extremes), and suggests an abbreviated form for day-to-day used.

TABLE 4 - EQUATIONS OF STRAIGHT LINES
FOR VALUES M_C AT LEAST 6.

PROB.	EQUATION	ABBREVIATED EQUATION
P_w .99	$\%_A = 8.942\,M_C + 21.400$	$\%_A = 8.9\,M_C + 21$
P_w .95	$\%_A = 8.766\,M_C + 14.481$	$\%_A = 8.8\,M_C + 14$
P_w .90	$\%_A = 8.671\,M_C + 10.576$	$\%_A = 8.7\,M_C + 10$
P_w .75	$\%_A = 8.516\,M_C + 4.264$	$\%_A = 8.5\,M_C + 4$
MEDIAN	$\%_A = 8.236\,M_C - 1.056$	$\%_A = 8.2\,M_C - 1$
P_d .75	$\%_A = 7.868\,M_C - 5.028$	$\%_A = 7.9\,M_C - 5$
P_d .90	$\%_A = 7.603\,M_C - 9.297$	$\%_A = 7.6\,M_C - 9$
P_d .95	$\%_A = 7.484\,M_C - 11.997$	$\%_A = 7.5\,M_C - 12$
P_d .99	$\%_A = 7.266\,M_C - 16.036$	$\%_A = 7.3\,M_C - 16$

P_w P_d : Probability (see paras. 13-17)
$\%_A$: Percentage of station's 1931-60 annual average rainfall
M_C : The number of consecutive months (at least 6)

34. The results of the use of the abbreviated equation are compared with the observed (mean) values in TABLE 5. If these were rounded to the nearest one percent, it will be seen that of the 54 pairs of comparisons, 23 have a difference (between "Observed" and "calculated") of 0 %, 23 have a difference between the limits of ± 1 %, and 53 out of the 54 fall within the limits of ± 2 %, with one case of -3 %, of the annual average rainfall.

TABLE 5 - CHECK OF RESULTS USING ABBREVIATED EQUATION

M_c	6		12		18		24		30		36	
	OBS.	ABBR. CAL.	OBS.	ABBR. CAL.	OBS.	ABBR. CAL.	OBS.	ABBR. CAL.	OBS.	ABBR. CAL.	OBS.	ABBR. CAL.
	PERCENT OF 1931-60 ANNUAL AVERAGE											
p_w .99	74.1	74.4	127.8	127.8	184.4	181.2	236.7	234.6	290.5	288.0	341.6	341.4
p_w .95	67.1	66.8	119.0	119.6	173.5	172.4	224.0	225.2	278.1	278.0	329.7	330.8
p_w .90	62.5	62.2	113.9	114.4	167.9	166.6	218.3	218.8	271.1	271.0	322.3	323.2
p_w .75	55.4	55.0	106.0	106.0	158.0	157.0	208.6	208.0	260.1	259.0	310.5	310.0
MEDIAN	48.5	48.2	97.8	97.4	146.9	146.6	196.7	195.8	245.9	245.0	295.6	294.2
p_w .75	42.1	42.4	90.1	89.8	136.0	137.2	183.6	184.6	230.8	232.0	278.6	279.4
p_w .90	36.3	36.6	82.7	82.2	126.8	127.8	173.3	173.4	217.9	219.0	265.2	264.6
p_w .95	33.5	33.0	78.2	78.0	121.5	123.0	167.8	168.0	211.3	213.0	258.7	258.0
p_w .99	28.9	27.8	70.9	71.6	112.6	115.4	159.2	159.2	201.0	203.0	246.7	246.8

35. The equations produced by Glasspoole and hence by Dixon were more complex as they sought to provide a formula for the graph catering for consecutive month periods less than six as well as more than six, and also passing through zero. Whilst similar equations for the present work are possible, the degree of reality must be somewhat suspect for the reasons set out in para. 22 (the unrepresentativeness of the shorter periods when using basic data from calendar months).

36. It is emphasised that the preceding paragraphs deal only with the rainfall element of reservoir design calculations: other parameters, such as evaporation, percolation, etc., require appropriate recognition.

APPENDIX

TABLES 6.1 to 6.7 Extracts from computer print-outs, showing actual values of rainfall from the wettest-on-record to the 15th-wettest, and from the 15th-driest to the driest-on-record, for each station, identifying the month and year that the consecutive months period COMMENCED.

EXTRACT FROM COMPUTER PRINT-OUT: WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	7.62 10/1870	14.04 11/1852	17.58 12/1852	20.30 10/1852	22.12 09/1852	25.01 08/1929	28.03 06/1852	33.19 06/1852	35.24 05/1852	37.79 05/1954	39.07 06/1852	44.39 08/1914	62.80 07/1957	81.23 08/1929	99.70 07/1956	113.68 08/1928
2nd....	7.15 11/1914	12.30 11/1876	16.76 10/1852	19.25 07/1950	22.06 06/1950	25.08 08/1852	28.04 07/1929	32.70 05/1852	34.57 06/1852	36.67 04/1852	38.89 04/1882	43.95 11/1894	62.44 06/1927	78.34 08/1956	98.09 08/1956	113.20 06/1958
3rd....	7.09 07/1890	12.21 11/1914	15.82 07/1950	19.03 10/1929	21.89 08/1929	24.74 06/1852	28.00 06/1956	31.55 07/1954	34.24 05/1954	36.07 05/1852	38.87 05/1954	42.57 06/1852	62.32 08/1957	78.27 10/1929	97.57 08/1929	112.81 05/1956
4th....	7.05 11/1852	10.87 06/1950	15.56 12/1876	18.96 11/1852	21.94 08/1852	24.71 06/1950	28.00 07/1954	31.54 06/1861	34.22 06/1956	36.51 06/1852	38.79 04/1924	42.44 07/1954	62.00 07/1927	78.02 07/1929	97.04 07/1929	111.97 06/1956
5th....	7.04 08/1892	10.85 06/1958	15.01 10/1929	18.79 06/1861	21.88 07/1950	24.68 09/1954	27.92 06/1944	31.04 05/1950	33.84 06/1954	36.51 06/1936	38.78 06/1956	42.07 06/1852	60.94 07/1930	77.76 09/1929	97.03 06/1956	111.94 05/1956
6th....	6.99 11/1852	10.47 06/1951	14.81 11/1876	18.68 09/1852	21.70 09/1872	24.62 07/1954	27.40 07/1852	30.86 05/1954	33.24 05/1950	36.26 05/1924	38.65 08/1930	42.95 03/1852	60.73 08/1930	77.76 11/1956	96.66 05/1956	111.46 07/1956
7th....	6.92 08/1928	10.59 11/1852	14.74 06/1958	18.45 06/1950	21.68 10/1852	24.55 07/1954	27.43 07/1950	30.78 06/1930	33.18 04/1852	35.88 05/1876	38.62 01/1928	41.92 07/1954	60.85 06/1852	77.26 07/1955	96.35 08/1927	110.98 12/1957
8th....	6.77 12/1876	10.48 09/1870	14.66 08/1954	18.24 11/1876	21.57 06/1958	24.52 07/1929	27.38 04/1940	30.60 06/1958	33.20 05/1929	35.83 10/1876	38.60 10/1876	41.91 06/1954	60.51 08/1948	77.18 12/1956	96.32 06/1929	110.96 08/1956
9th....	6.72 01/1942	10.42 07/1873	14.52 07/1924	18.07 08/1948	21.56 06/1861	24.21 05/1958	27.20 07/1950	30.46 05/1924	33.05 06/1950	35.83 06/1950	38.56 05/1858	41.84 05/1906	60.17 11/1859	77.17 07/1946	95.19 07/1946	110.68 08/1929
10th...	6.66 06/1889	10.41 07/1895	14.50 08/1950	18.03 10/1865	21.31 12/1876	24.12 06/1875	27.15 05/1954	30.40 06/1929	33.04 05/1938	35.78 05/1956	38.55 02/1954	41.82 05/1954	59.58 12/1959	76.89 11/1959	94.90 07/1927	110.57 02/1956
11th...	6.53 09/1962	10.34 08/1946	14.40 11/1951	18.02 10/1876	21.22 10/1876	23.99 07/1924	27.03 10/1876	30.29 06/1954	33.00 07/1950	35.77 09/1954	38.54 09/1930	41.17 08/1957	59.86 06/1930	76.83 01/1957	94.47 08/1946	110.51 03/1956
12th...	6.44 11/1890	10.30 10/1876	14.35 05/1951	18.01 11/1876	21.19 09/1910	23.96 10/1876	27.00 07/1918	30.22 07/1950	32.99 04/1944	35.54 10/1930	38.53 04/1852	41.48 05/1954	59.36 05/1957	76.82 10/1959	94.38 05/1929	110.46 01/1956
13th...	6.40 08/1905	10.30 06/1956	14.25 06/1861	17.89 10/1872	21.13 08/1954	23.92 07/1852	26.98 04/1950	30.11 12/1876	32.88 12/1876	35.52 06/1861	38.46 07/1960	41.45 12/1876	59.74 08/1927	76.80 03/1882	94.19 08/1949	110.33 11/1947
14th...	6.28 06/1956	10.27 06/1890	14.20 06/1930	17.77 09/1954	20.99 07/1875	23.90 06/1924	26.94 08/1954	30.05 06/1950	32.67 05/1852	35.43 07/1960	38.44 07/1924	41.43 06/1946	59.51 05/1852	76.71 07/1956	94.17 06/1958	110.24 10/1953
15th...	6.16 05/1916	10.15 08/1861	14.06 07/1861	17.70 09/1872	20.99 05/1924	23.89 06/1944	26.93 06/1954	29.93 06/1956	32.63 07/1954	35.39 11/1876	38.38 12/1957	41.34 08/1861	59.46 07/1953	76.57 08/1923	93.82 04/1956	110.11 04/1956
	1,458*	1,457*	1,456*	1,455*	1,454*	1,453*	1,452*	1,451*	1,450*	1,449*	1,448*	1,447*	1,442*	1,435*	1,429*	1,423*
15th...	.26 05/1871	1.73 03/1854	3.30 04/1873	5.08 12/1873	7.29 01/1887	9.17 03/1870	11.74 09/1855	14.00 11/1894	16.48 11/1894	18.10 10/1855	21.00 11/1855	23.14 12/1856	36.09 03/1840	53.02 04/1932	66.49 10/1854	81.40 05/1853
14th...	.26 06/1869	1.72 04/1940	3.32 03/1873	4.91 01/1891	7.23 12/1928	9.15 08/1933	11.64 09/1873	13.97 02/1847	16.27 10/1933	18.09 12/1846	20.83 08/1894	23.00 12/1892	36.98 06/1855	52.91 02/1840	66.26 02/1855	81.27 11/1855
13th...	.26 04/1842	1.70 04/1861	3.27 02/1854	4.90 02/1940	7.22 02/1874	9.07 08/1887	11.61 04/1847	13.95 02/1952	16.01 09/1855	17.99 09/1855	20.81 10/1855	22.89 09/1910	36.56 02/1840	52.89 03/1840	66.25 11/1853	81.24 11/1853
12th...	.25 08/1863	1.68 06/1933	3.26 04/1921	4.89 01/1952	7.18 04/1870	9.06 04/1919	11.57 12/1890	13.72 05/1933	15.96 08/1855	17.82 02/1933	20.12 11/1846	22.72 08/1855	36.56 02/1840	52.89 03/1840	66.25 11/1853	81.24 11/1853
11th...	.25 05/1895	1.66 02/1875	3.18 12/1890	4.89 01/1953	7.17 11/1873	9.03 02/1893	11.41 11/1852	13.44 10/1873	15.73 12/1846	17.76 11/1846	19.95 01/1933	22.42 11/1855	36.55 02/1952	52.60 04/1855	66.02 02/1887	81.09 12/1854
10th...	.19 02/1891	1.53 04/1844	3.09 09/1933	4.76 01/1929	7.16 02/1952	9.02 01/1873	11.34 10/1855	13.43 12/1890	15.31 09/1873	17.64 11/1855	19.53 09/1855	22.35 02/1933	36.33 10/1932	52.35 11/1855	65.94 12/1951	81.02 07/1855
9th....	.19 04/1854	1.51 01/1891	3.07 01/1891	4.74 12/1890	7.14 11/1855	9.02 07/1933	11.22 01/1895	13.39 11/1855	15.02 09/1933	17.54 10/1873	19.49 03/1933	22.24 09/1855	36.29 03/1933	51.72 10/1854	65.73 02/1854	80.99 09/1854
8th....	.18 04/1942	1.51 04/1895	3.06 05/1893	4.73 09/1933	7.14 04/1895	8.97 12/1892	11.19 01/1887	12.94 04/1933	14.96 03/1933	17.47 04/1933	19.46 02/1933	22.17 03/1887	36.06 21/1932	51.36 02/1855	65.64 08/1854	80.56 08/1851
7th....	.17 07/1878	1.43 03/1892	2.93 03/1875	4.68 03/1873	6.84 02/1921	8.92 01/1874	11.17 04/1870	12.85 12/1873	14.34 11/1873	16.89 05/1933	19.41 09/1873	21.59 01/1933	36.05 11/1854	51.21 03/1855	65.23 01/1887	80.54 08/1854
6th....	.15 09/1933	1.36 02/1944	2.79 03/1946	4.64 05/1893	6.83 03/1893	8.80 04/1952	11.16 06/1933	12.77 09/1855	14.33 11/1855	16.60 03/1933	19.31 07/1933	21.45 06/1933	35.81 01/1873	51.11 08/1932	64.76 09/1855	80.23 11/1854
5th....	.14 04/1875	1.26 05/1871	2.78 02/1892	4.62 08/1933	6.58 12/1890	8.75 12/1873	10.84 11/1873	12.74 12/1892	14.58 04/1933	16.55 08/1933	18.94 09/1933	21.22 05/1933	35.59 02/1855	50.30 11/1854	64.76 01/1932	79.80 12/1853
4th....	.12 02/1937	1.20 03/1939	2.72 01/1953	4.54 01/1892	6.29 01/1953	8.65 01/1953	10.55 12/1892	12.28 09/1933	14.32 06/1933	16.51 07/1941	18.68 05/1933	20.71 07/1933	34.85 02/1873	50.07 09/1854	64.63 09/1854	79.62 02/1855
3rd....	.10 03/1894	1.08 03/1840	2.57 02/1875	4.48 03/1887	6.26 08/1933	8.17 11/1855	9.88 09/1933	12.16 07/1933	14.30 10/1873	16.42 09/1933	18.65 06/1933	20.47 08/1933	34.49 02/1855	49.87 08/1854	64.30 10/1855	79.15 03/1855
2nd....	.08 04/1938	1.06 03/1938	2.27 02/1938	4.43 02/1875	5.86 02/1887	7.98 01/1887	9.61 12/1873	11.70 11/1873	13.97 07/1933	16.11 09/1873	17.95 08/1933	19.76 03/1933	33.67 02/1933	49.15 12/1854	64.22 02/1932	78.60 01/1855
DRIEST	.04 05/1844	1.07 03/1875	2.23 02/1873	3.66 02/1875	5.02 04/1873	7.89 09/1933	9.42 08/1933	11.21 08/1933	13.75 08/1933	16.11 06/1933	17.74 04/1933	19.53 04/1933	33.28 01/1933	48.29 01/1855	63.98 01/1855	77.96 04/1855

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·1 ARMAGH 1840-1963

APPENDIX

EXTRACT FROM COMPUTER PRINT-OUT: WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	10.10 11/1890	15.85 11/1914	23.99 07/1950	27.58 07/1950	30.33 07/1950	33.54 07/1950	38.11 07/1950	40.47 07/1950	44.06 04/1950	48.50 11/1911	52.66 06/1912	57.32 06/1912	82.75 11/1911	102.02 07/1911	128.55 10/1911	149.06 03/1912
2nd....	10.01 12/1914	15.30 07/1950	20.04 11/1914	23.69 04/1950	30.[illegible] 06/1950	33.51 04/1950	37.04 06/1950	40.01 06/1950	43.57 06/1912	47.79 06/1912	51.78 10/1911	55.53 10/1949	82.25 12/1911	101.94 11/1911	127.65 11/1911	148.10 01/1912
3rd....	8.93 07/1950	15.06 06/1950	19.86 12/1914	23.70 12/1914	28.01 05/1950	33.03 06/1950	37.02 04/1950	40.07 06/1912	43.44 12/1911	47.63 04/1950	51.49 05/1938	54.76 05/1912	81.16 10/1911	101.20 12/1911	125.57 12/1911	147.17 05/1912
4th....	8.69 09/1950	14.40 12/1914	19.55 10/1954	24.18 09/1954	28.08 05/1[illegible]	33.[illegible] 05/1[illegible]	35.92 07/29.8	39.45 04/1950	43.10 07/1936	46.95 06/1938	50.97 11/1911	54.40 11/1911	78.97 08/1911	100.66 08/1911	124.85 09/1911	147.09 02/1912
5th....	7.83 01/1877	13.51 10/1954	18.94 10/1929	23.64 10/1929	28.04 05/1[illegible]	31.87 07/1[illegible]	35.38 06/191[illegible]	39.[illegible] 07/1936	43.07 07/1950	47.[illegible] 06/1[illegible]	50.47 07/1914	54.25 10/1911	78.57 07/1923	100.54 06/1912	123.65 07/1912	146.10 06/1912
6th....	7.76 10/1954	13.16 10/1938	18.57 08/1950	23.41 10/1954	27.98 10/1[illegible]	31.76 08/1[illegible]	35.3[illegible] 03/1950	39.[illegible] 06/1950	42.96 06/1[illegible]	46.10 06/1954	50.39 04/1950	54.13 12/1911	78.48 01/1912	100.51 10/1911	123.43 08/1912	146.08 04/1912
7th....	7.69 06/1950	12.95 10/1890	18.41 [illegible] 1[illegible]	23.42 [illegible] 1954	27.[illegible] 1954	31.57 08/1[illegible]	35.[illegible] 06/1914	38.93 05/1924	42.84 06/1882	45.92 03/1950	50.17 11/1949	54.03 07/1912	78.13 08/1923	100.32 06/1911	122.82 08/1911	146.00 10/1911
8th....	7.41 01/1[illegible]	12.73 12/1911	18.14 09/1954	23.[illegible] 05/1[illegible]	27.15 11/1[illegible]	31.[illegible] 05/1[illegible]	34.95 05/1[illegible]	38.88 03/1950	42.81 05/1938	45.91 12/1911	49.89 05/1912	53.82 05/1938	77.96 09/1911	99.72 08/1923	122.02 07/1911	145.55 09/1911
9th....	7.34 10/1938	12.66 09/1955	18.08 06/1950	22.20 09/1918	27.07 05/1[illegible]	31.05 07/1[illegible]	34.[illegible] 08/1[illegible]	38.[illegible] 07/1930	42.77 05/1912	45.91 07/1912	49.49 03/1950	53.68 11/1949	76.68 09/1935	99.66 05/1912	121.86 08/1923	145.41 12/1911
10th...	7.33 12/1912	12.60 07/194[illegible]	17.85 07/1924	22.16 10/1914	26.89 04/1[illegible]	30.96 04/1[illegible]	34.41 07/1954	38.55 02/1950	42.73 05/1950	45.86 08/1912	49.48 03/1912	53.47 09/1911	76.65 09/1913	99.56 04/1912	121.84 09/1912	144.64 11/1911
11th...	7.29 11/1951	12.39 11/1911	17.79 11/1911	21.93 06/1924	26.87 08/1929	30.55 07/1954	34.36 05/1938	38.52 06/1882	42.27 05/1954	45.84 12/1949	49.[illegible] 06/1[illegible]	53.[illegible] 08/1950	76.62 07/1911	99.51 06/1923	121.77 08/1929	144.51 04/1911
12th...	7.25 01/1[illegible]	12.39 09/1954	17.77 10/1[illegible]	21.79 08/1916	26.85 05/1[illegible]	30.53 06/1[illegible]	34.32 07/1[illegible]	38.41 05/1954	42.[illegible] 06/1[illegible]	45.84 05/1[illegible]	49.35 12/1949	53.33 07/1950	76.46 08/1917	99.35 08/1929	120.82 10/1912	144.17 05/1911
13th...	7.17 09/1[illegible]	12.37 06/1946	17.[illegible] 07/1[illegible]	21.77 07/1930	26.56 06/1[illegible]	30.[illegible] 11/1[illegible]	34.[illegible] 06/1954	38.34 05/1938	42.10 05/1924	45.80 05/1882	49.34 12/1911	53.13 01/1877	76.17 06/1912	99.27 05/1911	120.76 11/1912	143.66 07/1911
14th...	7.06 12/1[illegible]	12.27 11/1951	17.66 06/1950	21.61 10/1938	26.42 06/1[illegible]	30.42 06/1[illegible]	34.14 07/1[illegible]	38.27 06/1938	42.06 07/1950	45.77 06/1950	49.28 06/1938	53.08 02/1910	75.87 08/1929	98.84 07/1923	120.62 12/1922	143.64 06/1911
15th...	7.05 06/1912	12.21 07/1924	17.45 09/1955	21.57 09/1955	25.95 [illegible] 1914	30.29 10/1[illegible]	34.05 06/1954	38.24 07/1954	41.86 06/1950	45.59 07/1938	49.27 04/1930	52.97 02/1911	75.83 08/1930	98.66 09/1911	120.49 07/1923	143.48 08/1911
	1,014*	1,013*	1,012*	1,011*	1,010*	1,009*	1,008*	1,007*	1,006*	1,005*	1,004*	1,003*	997*	991*	985*	979*
15th...	.66 02/1919	2.77 05/1941	5.19 03/1952	7.52 03/1953	10.20 02/1930	12.91 05/1887	15.35 01/1952	19.23 11/1879	22.48 09/1894	25.41 01/1953	28.25 05/1955	31.18 01/1933	49.45 02/1886	69.51 12/1885	86.50 01/1885	105.85 06/1886
14th...	.62 07/1898	2.74 01/1891	5.10 03/1948	7.51 12/1[illegible]	10.20 03/1952	12.87 01/1[illegible]	15.12 11/1952	19.21 02/1933	22.44 03/1933	25.29 05/1887	28.16 06/1887	31.14 12/1958	49.44 01/1952	69.24 11/1885	86.40 02/1932	105.68 02/1886
13th...	.61 09/1933	2.68 06/1885	5.04 02/1948	7.44 02/1948	9.98 12/1[illegible]	12.75 04/1959	15.04 12/1943	19.19 03/1959	22.43 05/1955	25.27 06/1933	27.99 09/1955	31.10 05/1933	48.88 03/1886	68.97 10/1957	86.31 10/1885	105.09 02/1886
12th...	.61 04/1954	2.66 04/1950	4.95 02/1952	7.44 05/1885	9.92 04/1885	12.71 03/1885	15.91 01/1891	19.18 16/1958	22.42 04/1933	25.26 05/1933	27.98 05/1887	30.96 05/1887	48.88 03/1886	68.97 10/1957	86.31 10/1885	105.09 02/1886
11th...	.60 09/1895	2.65 03/1946	4.89 04/1941	7.44 02/1895	9.90 02/1[illegible]	12.54 01/1950	15.86 02/1955	19.12 10/1955	22.42 07/1933	25.03 05/1933	27.73 05/1933	30.50 04/1887	48.75 02/1952	68.25 12/1886	86.08 01/1886	104.89 07/1886
10th...	.59 05/1895	2.57 04/1896	4.63 04/1894	7.38 01/1929	9.83 04/1959	12.55 1[illegible]	15.67 03/1933	19.05 11/1955	21.85 11/1958	24.76 08/1955	27.69 10/1879	29.89 06/1955	48.20 01/1933	67.90 08/1886	85.75 06/1886	104.88 02/1885
9th....	.58 02/1934	2.53 02/1944	4.59 02/1953	7.38 06/1959	9.45 04/1959	12.39 04/1[illegible]	15.58 11/1955	19.05 11/1952	21.79 04/1933	24.69 09/1958	27.[illegible] 04/1887	29.78 01/1887	47.97 02/1933	67.76 02/1887	85.70 03/1885	104.82 04/1886
8th....	.54 03/1953	2.47 06/1959	4.56 04/1885	7.05 03/1887	9.42 04/1[illegible]	12.33 03/1959	15.[illegible] 01/1959	18.99 03/1887	21.70 03/1887	24.68 07/1955	27.[illegible] 1[illegible]/1958	29.76 02/1887	47.61 02/1955	67.68 11/1886	85.47 03/1886	104.74 01/1885
7th....	.51 03/1929	2.46 04/1893	4.54 12/1890	7.05 03/1959	9.25 01/1944	12.18 01/1[illegible]	15.46 12/1952	18.75 02/1887	21.40 01/1887	24.09 10/1956	27.07 02/1887	29.53 04/1933	47.48 11/1886	67.09 02/1886	85.11 05/1886	104.03 08/1886
6th....	.51 04/1938	2.35 03/1892	4.51 02/1953	7.04 02/1944	9.17 02/1953	12.12 02/1887	14.98 01/1953	18.68 10/1879	21.18 10/1879	24.08 02/1959	26.83 04/1933	29.48 11/1958	47.47 04/1958	66.93 01/1887	85.08 12/1885	104.62 07/1885
5th....	.47 06/1941	2.24 04/1895	4.27 02/1956	6.57 02/1946	9.07 01/1956	12.03 03/1955	14.83 01/1887	18.55 11/1958	20.79 10/1958	23.48 02/1887	26.81 01/1959	29.47 03/1933	47.34 03/1958	66.60 01/1886	84.50 02/1886	104.46 11/1885
4th....	.46 02/1891	2.18 03/1929	4.16 03/1956	6.45 02/1956	9.00 02/1[illegible]	11.94 01/1[illegible]	14.69 01/1887	18.71 12/1890	20.77 02/1887	23.46 01/1887	26.10 01/1887	28.41 07/1955	47.27 12/1886	64.99 03/1886	84.26 11/1885	102.18 04/1885
3rd....	.32 09/1[illegible]	2.19 02/1955	3.99 03/1893	6.24 02/1953	8.[illegible] 01/1887	11.53 04/1959	14.[illegible] 1[illegible]	17.[illegible] 01/1887	20.56 12/1958	23.11 01/1959	25.94 07/1955	28.[illegible] 03/1887	47.17 02/1887	64.91 05/1886	83.97 04/1886	101.91 06/1885
2nd....	.26 06/1947	2.13 07/1955	3.81 04/1953	6.14 01/1953	8.75 05/1959	11.46 02/1952	14.[illegible] 03/1959	16.25 01/1959	20.38 08/1959	22.02 11/1956	24.86 10/1958	28.76 09/1956	47.00 01/1955	64.77 06/1886	83.90 02/1887	101.81 03/1885
DRIEST	.22 02/1930	1.77 04/1945	3.47 03/1946	5.53 04/1956	7.87 01/1953	10.[illegible] 01/1953	13.52 04/1959	15.[illegible] 02/1959	1 .95 01/1959	22.28 12/1958	24.32 11/1958	26.56 10/1958	45.24 01/1887	64.66 04/1886	83.53 01/1887	101.53 05/1885

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·2 BALLYMENA, Harryville 1877-1963

EXTRACT FROM COMPUTER PRINT-OUT: WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	9.90 10/1870	15.45 12/1876	19.45 11/1876	24.68 10/1876	28.27 09/1876	31.49 08/1876	34.65 10/1876	38.24 09/1876	41.46 08/1876	44.44 06/1936	47.22 10/1911	49.50 09/1876	74.09 09/1935	91.01 09/1935	111.82 09/1934	131.79 04/1934
2nd....	8.79 12/1876	13.29 12/1919	18.22 11/1852	22.11 11/1876	27.34 10/1876	30.93 09/1876	34.15 08/1876	37.67 07/1936	41.16 09/1876	44.38 08/1876	46.93 06/1936	49.44 08/1876	72.55 10/1935	90.91 08/1935	111.44 08/1934	131.47 08/1934
3rd....	7.76 11/1890	13.12 11/1852	18.11 12/1876	21.61 09/1876	25.66 09/1954	30.40 10/1876	33.99 09/1876	37.57 10/1876	41.10 07/1936	43.59 07/1936	46.35 08/1876	48.75 09/1911	70.88 08/1935	90.64 08/1923	111.34 08/1923	131.21 05/1934
4th....	7.76 12/1919	12.93 11/1914	18.02 10/1876	21.36 11/1914	25.42 12/1876	29.42 11/1876	32.87 07/1876	37.21 08/1876	41.01 06/1936	43.48 11/1911	46.22 09/1876	48.70 11/1911	70.67 08/1876	90.03 05/1935	110.63 10/1934	130.79 07/1934
5th....	7.75 10/1938	12.79 11/1876	17.84 06/1912	21.35 10/1954	25.17 11/1876	28.91 09/1954	32.86 07/1954	36.46 06/1912	39.54 10/1876	43.13 09/1876	45.99 05/1936	48.68 06/1876	70.34 07/1923	89.94 04/1935	110.52 12/1922	130.78 03/1934
6th....	7.72 12/1914	12.36 01/1937	16.93 10/1954	21.24 09/1954	24.83 08/1876	28.76 08/1923	32.34 11/1876	36.12 07/1954	38.86 07/1927	42.84 07/1876	45.91 10/1876	48.50 10/1911	70.26 08/1923	89.77 06/1935	110.47 10/1938	129.55 06/1934
7th....	7.58 12/1929	12.30 10/1938	16.75 10/1938	21.17 12/1876	24.60 10/1954	28.76 08/1954	32.01 08/1954	35.79 06/1876	38.64 06/1927	42.63 10/1876	45.76 06/1876	48.48 05/1936	70.17 08/1911	89.71 06/1923	109.85 08/1935	129.20 06/1938
8th....	7.53 06/1912	12.27 11/1929	16.61 07/1950	21.15 10/1938	24.36 09/1935	28.44 07/1954	31.92 09/1927	35.75 08/1927	38.59 07/1876	42.56 05/1936	45.76 07/1876	48.16 06/1936	70.14 10/1911	89.59 07/1923	108.93 12/1934	129.14 02/1923
9th....	7.43 12/1934	12.22 10/1954	16.59 11/1914	20.78 10/1929	24.34 08/1954	28.43 10/1940	31.87 08/1927	35.53 07/1876	38.59 06/1954	42.52 06/1927	44.82 07/1936	48.05 08/1946	70.05 11/1935	89.38 01/1923	108.88 07/1923	128.79 05/1938
10th...	7.15 11/1951	12.21 12/1852	16.55 11/1929	20.52 10/1920	23.91 10/1938	28.36 09/1936	31.79 09/1936	35.34 06/1954	38.49 05/1954	41.86 06/1938	44.76 11/1911	48.02 07/1936	69.81 11/1911	88.46 07/1935	108.80 11/1934	128.74 09/1934
11th...	7.11 12/1852	12.02 11/1951	16.53 09/1954	20.47 08/1930	23.77 10/1936	28.34 12/1876	31.65 07/1923	35.14 06/1938	38.45 06/1876	41.74 05/1954	44.38 08/1946	47.90 10/1876	69.66 09/1876	88.26 03/1935	108.63 01/1923	127.92 01/1923
12th...	7.11 01/1948	11.86 12/1929	16.50 10/1929	20.24 11/1936	23.74 09/1938	28.04 09/1927	31.30 07/1936	34.98 07/1927	38.44 12/1911	41.51 06/1876	44.32 06/1938	47.88 06/1912	69.13 07/1927	88.06 02/1923	108.45 09/1923	127.29 08/1923
13th...	7.08 10/1920	11.54 08/1946	16.41 11/1919	19.98 11/1852	23.73 07/1954	27.87 10/1938	31.09 08/1936	34.64 06/1936	37.90 06/1938	41.33 08/1946	44.17 06/1912	47.82 12/1876	68.84 06/1927	87.96 10/1935	108.44 02/1923	126.80 04/1938
14th...	6.99 01/1942	11.53 11/1954	16.20 08/1930	19.73 10/1852	23.72 08/1930	27.52 08/1935	30.92 06/1954	34.56 07/1944	37.84 05/1912	40.76 06/1912	44.17 04/1936	47.73 07/1876	68.75 09/1911	86.74 05/1938	108.08 07/1934	126.67 07/1923
15th...	6.95 07/1896	11.39 11/1911	16.15 12/1914	19.63 09/1944	23.70 07/1930	27.32 09/1944	30.89 07/1938	34.52 08/1936	37.84 06/1912	40.74 10/1911	44.16 05/1927	47.60 04/1936	68.49 07/1876	86.72 08/1934	108.07 09/1938	126.22 09/1938
	1,218*	1,217*	1,216*	1,215*	1,214*	1,213*	1,212*	1,211*	1,210*	1,209*	1,208*	1,207*	1,201*	1,195*	1,189*	1,183*
15th...	.32 09/1895	1.87 02/1892	3.51 04/1874	5.37 02/1944	7.85 02/1952	10.32 12/1952	12.78 01/1953	15.07 12/1892	17.97 06/1887	20.10 07/1933	22.55 05/1887	25.37 06/1887	40.37 02/1933	56.11 03/1886	71.17 11/1892	85.87 03/1855
14th...	.31 06/1941	1.84 03/1892	3.51 03/1938	5.31 01/1891	7.84 02/1930	10.30 03/1870	12.61 11/1879	15.00 09/1933	17.89 09/1933	20.10 09/1860	22.52 06/1887	25.15 11/1879	40.33 02/1855	56.02 08/1853	70.99 09/1892	85.78 02/1854
13th...	.31 06/1889	1.83 02/1952	3.36 12/1890	5.28 02/1854	7.79 02/1944	10.20 01/1895	12.51 01/1874	14.90 12/1890	17.62 06/1933	20.04 06/1933	22.48 09/1933	25.14 10/1869	40.33 02/1952	56.00 09/1854	70.43 08/1853	85.69 06/1853
12th...	.30 02/1934	1.80 04/1875	3.35 02/1854	5.26 10/1879	7.70 02/1874	10.04 02/1875	12.49 12/1892	14.90 07/1857	17.33 08/1933	20.01 03/1887	22.42 04/1857	24.95 07/1933	40.29 11/1853	55.78 08/1854	70.29 11/1885	85.62 05/1885
11th...	.30 08/1947	1.80 08/1894	3.32 02/1873	5.20 03/1874	7.57 03/1887	9.93 02/1921	12.46 11/1894	14.72 02/1887	17.27 03/1893	20.00 05/1933	22.42 05/1933	24.84 12/1892	40.06 02/1873	55.72 10/1892	70.20 10/1853	85.55 03/1885
10th...	.30 04/1938	1.78 05/1895	3.05 05/1868	5.15 03/1953	7.54 01/1887	9.89 12/1853	12.42 11/1853	14.61 07/1933	17.19 01/1887	19.85 09/1933	22.18 08/1933	24.82 01/1855	40.02 01/1933	55.70 11/1853	70.04 09/1853	85.53 07/1892
9th....	.29 04/1875	1.73 03/1854	2.98 02/1892	5.07 02/1887	7.50 03/1893	9.85 03/1887	12.26 12/1894	14.52 11/1952	17.16 05/1857	19.70 09/1952	22.08 09/1873	24.81 08/1933	39.74 02/1854	55.34 03/1893	69.00 03/1854	85.26 04/1853
8th....	.28 05/1861	1.61 02/1891	2.96 04/1921	5.05 02/1952	7.36 12/1890	9.58 01/1874	11.93 09/1933	14.38 02/1870	17.06 06/1857	19.64 10/1873	21.99 08/1894	24.40 04/1887	39.65 03/1869	55.30 11/1886	68.95 02/1887	85.09 01/1854
7th....	.27 02/1888	1.47 03/1938	2.93 02/1953	4.92 03/1893	7.33 03/1883	9.57 10/1879	11.84 08/1933	14.31 10/1879	17.03 07/1933	19.49 12/1869	21.90 10/1879	24.23 04/1857	39.00 04/1869	55.04 01/1885	68.87 01/1887	85.00 04/1855
6th....	.24 05/1895	1.41 03/1929	2.84 04/1861	4.89 02/1953	7.25 02/1873	9.51 09/1933	11.73 03/1870	14.26 08/1933	16.82 01/1870	19.28 05/1887	21.80 03/1887	23.83 05/1887	38.90 01/1952	55.03 06/1886	68.56 01/1854	84.80 01/1855
5th....	.20 02/1932	1.38 02/1953	2.80 01/1891	4.85 12/1890	6.91 02/1875	9.26 02/1952	11.64 11/1873	14.17 11/1879	16.71 10/1873	19.15 09/1873	21.50 01/1887	23.61 03/1933	38.55 02/1887	54.87 01/1854	68.35 12/1892	84.18 09/1853
4th....	.17 05/1859	1.31 01/1891	2.80 03/1875	4.72 02/1938	6.21 01/1953	9.09 12/1873	11.60 12/1952	14.00 11/1894	16.71 07/1857	19.03 02/1887	21.16 04/1933	23.58 04/1933	38.51 01/1855	54.86 03/1854	67.75 01/1893	83.64 08/1853
3rd....	.16 06/1921	1.29 03/1875	2.70 01/1953	4.70 03/1887	6.18 02/1921	8.54 02/1887	11.01 01/1887	13.29 01/1887	16.38 02/1887	18.87 06/1857	21.13 04/1887	23.45 01/1887	37.96 11/1886	54.60 04/1854	67.36 02/1854	83.27 05/1853
2nd....	.12 02/1891	1.10 04/1861	2.68 02/1938	4.25 01/1953	6.17 02/1953	8.14 01/1887	10.82 02/1887	13.12 12/1873	15.87 10/1879	18.85 01/1887	20.98 02/1887	22.77 02/1887	37.88 12/1886	54.15 02/1854	67.35 12/1853	83.23 11/1853
DRIEST	.06 09/1894	.92 06/1868	2.35 02/1875	3.86 02/1875	5.67 02/1887	7.49 01/1953	10.19 12/1873	12.74 11/1873	15.67 11/1873	18.43 05/1857	20.24 05/1857	22.07 03/1887	36.69 01/1887	54.12 12/1853	66.87 11/1853	82.85 12/1853

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·3 BELFAST, Queen's University 1852-1955

EXTRACT FROM COMPUTER PRINT-OUT: WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	9.62 07/1936	15.69 10/1936	21.34 10/1936	25.[illegible] 08/[illegible] 17	[illegible] 08/[illegible]	34.05 10/1936	40.15 07/1936	[illegible] 07/1936	47.68 06/1936	51.[illegible] 06/[illegible]	53.91 05/1938	56.[illegible] 10/[illegible]	85.21 08/1942	105.98 06/1923	132.69 07/1948	156.84 11/1947
[illegible]	9.28 08/[illegible]	14.84 08/[illegible]	[illegible] 08/[illegible]	[illegible] 07/[illegible]	[illegible] 07/[illegible]	33.86 07/[illegible]	38.66 08/1[illegible]	41.[illegible] 06/1936	46.[illegible] 07/1936	49.30 07/1924	52.98 07/1924	[illegible] 08/[illegible]	82.70 07/1942	105.49 05/1923	132.47 07/1942	154.95 10/1947
[illegible]	8.83 1[illegible]	[illegible] 08/[illegible]	[illegible] 08/[illegible]	[illegible] 08/[illegible]	[illegible] 1[illegible]	[illegible] 08/[illegible]	38.37 06/[illegible]	[illegible] 07/1936	46.[illegible] 07/1936	48.[illegible] 07/1936	52.90 06/1936	[illegible] 08/[illegible]	[illegible] 09/1935	104.65 07/1923	132.24 08/1942	154.79 08/1942
[illegible]	8.47 06/[illegible]	[illegible] 10/[illegible]	19.57 07/1950	24.[illegible] 10/[illegible]	28.73 07/1917	[illegible] 07/[illegible]	[illegible] 07/[illegible]	41.[illegible] 07/[illegible]	45.91 06/1936	[illegible] 07/[illegible]	52.16 11/1949	[illegible] 07/[illegible]	[illegible] 10/1949	104.51 08/1923	132.04 08/1948	154.22 07/1942
5th.....	8.41 09/1950	13.07 07/1910	19.07 07/1924	[illegible] 07/[illegible]	28.39 08/1923	33.15 07/1942	37.62 07/1930	[illegible] 05/[illegible]	[illegible] 08/[illegible]	49.06 07/1936	52.15 08/1930	[illegible] 12/[illegible]	81.11 08/1949	104.17 10/1948	131.30 06/1948	153.97 01/1948
6th.....	8.22 10/1938	13.38 07/1936	[illegible] 09/1935	23.07 06/[illegible]	28.28 08/1942	33.07 08/1917	37.[illegible] 09/1936	41.15 06/1938	[illegible] 08/1936	48.74 05/1938	52.02 06/1936	[illegible] 04/[illegible]	80.82 09/1949	103.98 12/1948	130.79 09/1948	152.85 04/1948
7th.....	8.12 08/[illegible]	13.29 09/1934	[illegible] 08/1917	[illegible] 06/[illegible]	27.65 10/1930	[illegible] 06/[illegible]	[illegible] 06/[illegible]	[illegible] 06/1936	44.44 07/1924	48.10 07/1948	52.00 06/1924	[illegible] 05/[illegible]	80.80 11/1947	103.91 11/1948	129.96 06/1948	152.58 03/1948
8th.....	8.02 11/1950	[illegible] 09/1942	[illegible] 07/1936	[illegible] 07/1936	27.57 07/1890	32.81 07/[illegible]	[illegible] 08/1917	[illegible] 07/[illegible]	44.00 07/1930	[illegible] 08/[illegible]	51.94 09/[illegible]	[illegible] 06/[illegible]	[illegible] 06/1917	103.53 07/1942	129.08 04/1948	152.26 02/1948
9th.....	8.01 11/1947	[illegible] 10/1935	18.84 09/1938	[illegible] 08/1950	27.50 08/[illegible]	[illegible] 08/1942	36.81 06/1928	40.21 08/1938	43.98 05/1938	[illegible] 08/[illegible]	51.88 06/1948	55.50 11/[illegible]	80.68 08/1923	103.48 04/1923	129.02 09/1942	152.21 12/1947
10th...	7.99 11/1887	13.12 11/1938	18.82 10/1917	[illegible] 09/1935	27.46 07/1942	[illegible] 06/[illegible]	36.80 06/1936	40.18 07/1917	43.83 07/1942	47.34 07/1938	[illegible] 04/[illegible]	[illegible] 06/[illegible]	80.45 07/1923	103.05 08/1929	128.95 08/1923	152.10 05/1948
11th ...	7.95 08/[illegible]	[illegible] 07/[illegible]	[illegible] 08/[illegible]	[illegible] 06/[illegible]	27.43 08/1928	32.43 07/1950	36.56 07/1950	40.03 07/1950	43.44 04/1917	47.15 07/1942	51.49 04/1924	55.13 07/1942	80.32 06/1942	102.99 01/1949	128.76 11/1947	151.31 06/1948
12th...	7.92 [illegible]	[illegible] 08/[illegible]	[illegible] 08/[illegible]	[illegible] 08/[illegible]	27.43 09/1944	32.20 07/1923	36.35 07/1917	39.90 06/1082	43.39 06/1948	47.14 06/1924	51.43 07/1948	54.60 04/1938	80.26 08/1935	102.00 07/1929	128.55 06/1942	150.55 09/1947
13th...	7.92 09/1942	[illegible] 08/[illegible]	[illegible] 08/[illegible]	[illegible] 08/[illegible]	27.30 04/1930	32.03 09/1938	36.05 06/1917	39.86 07/1924	43.34 07/1950	47.13 06/1930	51.23 07/1936	54.58 12/1949	79.98 07/1948	102.12 08/1942	127.94 10/1948	150.47 06/1942
14th...	7.72 01/1948	[illegible] 09/1936	[illegible] 10/1949	[illegible] 08/[illegible]	27.29 07/1930	31.88 06/1936	35.87 10/1938	39.63 08/1930	43.31 05/1954	46.91 12/1949	51.21 12/1949	54.55 07/1924	79.61 07/1917	102.03 08/1948	127.60 07/1936	150.09 01/1942
15th...	7.64 10/1895	[illegible] 08/[illegible]	[illegible] 10/1929	[illegible] 10/[illegible]	[illegible] 08/[illegible]	31.62 08/1923	35.63 07/[illegible]	[illegible] 07/[illegible]	[illegible] 08/[illegible]	46.83 08/[illegible]	51.01 07/[illegible]	54.27 08/[illegible]	[illegible] 09/1923	101.92 09/1948	127.12 07/1923	150.05 03/1942
	1,002*	1,001*	1,000*	999*	998*	997*	996*	995*	994*	993*	992*	991*	985*	979*	973*	967*
1th...	.85 03/1929	3.03 04/1895	5.25 01/1963	7.93 [illegible] 1952	10.57 04/[illegible]	[illegible] 01/1911	[illegible] 12/1879	[illegible] 12/[illegible]	[illegible] 04/[illegible]	[illegible] 07/[illegible]	30.21 10/1879	33.13 08/1894	[illegible] 01/1880	73.82 05/1878	91.69 01/1880	112.77 01/1878
2th...	.80 04/[illegible]	2.99 04/[illegible]	5.18 04/1921	[illegible] 04/1886	[illegible] 03/[illegible]	[illegible] 01/1941	16.91 10/1962	[illegible] 04/[illegible]	[illegible] 12/[illegible]	[illegible] 09/[illegible]	[illegible] 12/1879	[illegible] 01/[illegible]	[illegible] 12/2010	73.28 03/1878	91.62 02/1878	112.08 03/1879
3th...	.78 01/1891	2.99 01/1953	5.16 02/1949	7.92 04/[illegible]	10.41 01/[illegible]	15.01 10/28 9	16.91 12/1878	20.51 02/1933	[illegible] 01/1881	26.88 02/1911	29.92 06/1878	32.96 10/1879	52.02 03/1885	72.88 02/1880	91.31 08/1879	111.87 08/1878
4th...	.76 02/1890	2.93 01/1879	5.15 03/1917	7.80 04/1952	10.29 [illegible]/1890	[illegible] 01/1895	16.87 05/[illegible]	[illegible] 12/1928	[illegible] 08/[illegible]	26.78 07/1955	29.86 02/1955	32.87 07/1955	52.01 10/1879	72.78 12/1878	91.31 03/1884	111.87 09/1878
5th...	.75 08/1921	2.92 04/1936	5.11 04/1895	7.83 02/1936	10.26 01/1879	[illegible] 12/1890	16.78 01/1911	20.12 01/1959	22.99 09/1894	26.60 03/1955	29.81 12/1958	32.71 07/1894	52.01 01/1885	72.60 04/1878	91.22 02/1879	111.01 04/1878
6th...	.74 11/1949	2.87 08/1909	5.07 01/1879	7.81 04/1929	10.25 02/1890	15.43 11/1878	16.68 01/1929	20.09 12/1910	22.92 09/1910	26.55 11/1958	29.67 10/1910	32.65 08/1955	51.99 03/1884	72.41 02/1878	91.19 05/1878	110.80 02/1879
7th...	.70 07/1898	2.84 02/1924	5.06 12/1890	7.49 01/1963	10.17 01/[illegible]	15.40 01/1891	16.56 02/1959	19.94 02/1885	22.91 12/1884	26.24 03/1955	29.52 04/1933	32.63 11/1958	51.81 01/1933	72.36 01/1880	91.02 01/1885	110.46 03/1878
8th...	.69 04/1938	2.84 04/1928	5.05 02/1890	[illegible] 02/1895	10.15 12/1878	15.33 04/1885	16.54 04/1911	19.79 02/1911	22.86 12/1910	26.20 01/1959	29.40 02/1933	32.52 04/1955	51.79 01/1955	71.73 08/1879	90.71 09/1879	110.42 10/1878
9th...	.66 07/1878	2.81 03/1929	5.03 03/1893	7.39 03/1957	10.10 04/1885	15.10 12/1878	16.[illegible] 12/1910	19.[illegible] 01/1911	22.84 04/1959	25.89 08/1894	29.21 11/1910	31.99 03/[illegible]	51.32 04/1955	71.55 07/1878	90.13 11/1878	110.30 05/1878
10th...	.55 03/1924	2.76 04/1893	4.99 03/1952	7.25 02/1957	9.86 05/1959	15.01 03/[illegible]	16.27 02/1959	[illegible] 12/1890	[illegible] 01/1885	25.58 04/1955	29.14 07/1955	31.93 11/1879	51.26 11/1879	71.34 06/1878	90.03 01/1878	109.46 07/1878
5th...	.52 08/1889	2.66 04/1957	4.92 02/1892	7.10 01/1953	9.68 12/1878	12.84 02/1952	16.16 03/1911	18.84 11/1879	[illegible] 03/1955	25.26 09/1910	28.58 01/1911	31.89 12/1910	51.25 09/1910	71.32 09/1879	89.56 12/1879	108.96 01/1879
4th...	.50 09/1894	2.60 03/1893	4.90 04/1957	6.97 03/1893	9.64 01/1953	12.70 03/1885	16.02 01/1885	18.59 03/1911	22.22 02/1911	25.07 09/1894	28.30 09/1910	31.61 10/1910	51.10 12/1878	71.06 12/1879	89.19 01/1879	108.47 04/1878
3rd...	.49 08/1947	2.54 02/1953	4.70 04/1893	6.87 02/1890	9.52 02/1895	12.06 01/1929	15.76 11/1879	18.48 10/1879	21.56 10/1879	24.98 12/1958	27.97 08/1894	31.77 10/1958	51.04 11/1879	71.02 11/1878	89.10 11/1879	108.33 12/1878
2nd...	.25 02/1932	2.38 07/1955	4.43 04/1929	6.78 01/1879	9.47 02/1957	12.00 12/1928	15.51 02/1885	18.20 01/1885	21.49 01/1911	24.80 12/1910	27.80 11/1958	31.64 11/1910	51.04 02/1953	69.03 11/1879	89.08 10/1879	108.25 02/1878
DRIEST	.25 02/1891	2.25 01/1963	4.00 01/1953	6.59 01/1929	8.[illegible] 01/1929	12.[illegible] 01/1953	15.22 12/1890	17.81 02/1959	21.37 01/1959	23.92 01/1911	27.25 12/1910	30.[illegible] 09/1910	50.96 12/1879	68.02 10/1879	88.23 12/1878	108.12 11/1878

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·4 CREGGAN RES. No.1 1878–1963

EXTRACT FROM COMPUTER PRINT-OUT: **WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD**

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	9.14 12/1919	15.53 10/1917	20.64 07/1950	24.96 08/1917	28.49 09/1954	33.52 07/1954	37.82 07/1954	41.76 05/1954	46.06 05/1954	48.98 05/1954	51.58 02/1954	55.88 02/1954	79.12 07/1953	99.22 11/1902	122.35 09/1901	142.98 11/1947
2nd....	8.86 09/1950	15.05 10/1938	20.08 10/1938	24.86 07/1950	28.40 07/1950	32.17 07/1950	37.23 06/1954	41.53 06/1954	44.50 06/1936	47.58 01/1903	51.13 03/1954	55.39 10/1949	78.69 11/1902	98.57 09/1902	121.73 08/1901	142.43 09/1901
3rd....	8.63 10/1954	15.02 08/1950	19.36 09/1917	24.19 09/1954	28.19 08/1917	31.89 08/1954	36.55 07/1936	41.01 07/1936	44.45 06/1954	47.46 04/1954	51.07 01/1928	55.31 11/1902	78.49 09/1902	98.38 04/1902	120.97 08/1948	141.84 08/1901
4th....	8.36 10/1917	14.46 12/1876	19.24 08/1950	23.74 06/1950	28.10 07/1954	31.81 06/1954	36.41 08/1903	40.77 07/1903	43.76 07/1903	46.83 07/1903	50.97 12/1902	54.99 11/1949	78.28 10/1902	98.37 10/1902	120.86 07/1948	141.54 03/1901
5th....	8.17 07/1936	14.34 12/1919	19.24 10/1954	23.54 10/1954	27.96 06/1950	31.78 09/1944	36.34 05/1954	40.74 07/1954	43.16 04/1954	46.83 03/1954	50.77 11/1949	54.86 01/1903	77.45 09/1935	98.29 12/1902	120.76 12/1922	141.42 11/1900
6th....	7.92 08/1903	13.82 10/1954	19.09 08/1903	23.45 07/1903	27.60 09/1944	31.50 06/1950	36.18 08/1917	40.04 06/1936	42.99 07/1936	46.66 05/1936	50.62 01/1903	54.82 01/1954	77.35 08/1953	98.07 03/1902	120.63 10/1901	140.76 10/1947
7th....	7.71 12/1929	13.58 09/1954	18.77 09/1954	23.35 10/1938	27.59 08/1954	31.41 09/1954	35.69 07/1950	39.40 08/1903	42.72 06/1903	46.48 06/1936	50.38 04/1954	54.71 03/1903	77.13 10/1949	98.07 08/1929	120.50 06/1948	140.72 10/1901
8th....	7.70 10/1870	13.56 11/1919	18.76 10/1917	23.34 09/1944	27.37 10/1938	31.33 10/1938	35.38 08/1944	39.05 07/1950	42.47 08/1903	46.16 02/1954	50.01 05/1954	54.55 01/1928	76.87 09/1949	98.05 07/1953	120.31 09/1948	140.68 04/1901
9th....	7.67 12/1876	13.55 08/1946	18.76 11/1919	22.91 07/1954	26.94 08/1944	31.20 08/1944	35.37 07/1903	38.79 06/1912	42.38 07/1950	46.08 06/1938	49.93 12/1949	54.05 03/1954	76.84 09/1953	97.97 05/1902	119.84 08/1934	140.57 06/1901
10th...	7.66 01/1928	13.22 01/1928	18.03 09/1944	22.78 08/1950	26.86 07/1917	31.15 05/1954	35.27 06/1950	38.79 06/1950	42.20 05/1936	45.83 05/1938	49.79 05/1938	54.03 12/1902	76.74 12/1902	97.75 01/1903	119.54 09/1934	140.39 01/1928
11th...	7.54 10/1916	13.08 09/1950	17.97 10/1929	22.59 09/1917	26.75 10/1917	31.05 08/1917	34.83 06/1938	38.54 05/1938	42.15 06/1950	45.71 06/1903	49.40 01/1954	53.47 12/1949	76.42 08/1949	97.70 11/1948	119.45 08/1929	140.16 10/1900
12th...	7.53 10/1938	12.81 08/1962	17.92 10/1944	22.48 10/1929	26.62 06/1954	31.01 08/1903	34.81 08/1954	38.20 07/1944	42.12 06/1938	45.71 12/1949	49.31 03/1903	53.40 08/1930	76.16 08/1935	97.53 12/1948	119.30 07/1936	140.13 08/1917
13th...	7.52 11/1938	12.61 10/1944	17.87 07/1946	22.48 09/1938	26.55 08/1950	30.73 07/1903	34.61 07/1929	38.10 06/1938	41.81 05/1938	45.69 01/1928	49.26 09/1944	53.31 02/1903	76.01 08/1917	97.12 10/1948	118.97 11/1901	140.04 05/1901
14th...	7.47 11/1947	12.57 10/1900	17.86 12/1876	22.18 10/1944	26.49 07/1903	30.58 09/1917	34.04 09/1944	38.08 07/1917	41.77 07/1954	45.48 07/1936	49.22 07/1903	53.23 12/1953	75.74 08/1902	96.68 09/1935	118.86 10/1948	139.83 01/1948
15th...	7.45 06/1891	12.55 11/1938	17.79 08/1917	22.17 08/1954	26.46 10/1954	30.56 08/1929	34.02 07/1944	37.74 04/1954	41.41 03/1954	45.48 06/1950	48.97 06/1936	53.02 06/1912	75.46 07/1949	96.58 07/1929	118.74 07/1901	139.54 08/1934
	1,158*	1,157*	1,156*	1,155*	1,154*	1,153*	1,152*	1,151*	1,150*	1,149*	1,148*	1,147*	1,141*	1,135*	1,129*	1,123*
15th...	.55 06/1921	2.60 05/1921	4.69 12/1890	7.03 04/1962	9.62 04/1868	12.03 02/1868	14.89 12/1892	18.00 12/1867	21.42 01/1868	24.18 09/1933	27.39 07/1933	30.00 02/1933	46.23 12/1879	64.64 10/1867	81.11 11/1879	97.99 02/1868
14th...	.53 02/1934	2.58 04/1866	4.67 04/1941	7.03 11/1873	9.52 02/1953	11.97 02/1962	14.83 04/1933	17.95 07/1933	21.40 10/1873	23.97 08/1880	27.32 02/1871	29.82 06/1933	45.97 03/1885	64.37 08/1868	80.95 01/1887	97.94 07/1868
13th...	.51 02/1895	2.57 03/1873	4.66 02/1938	6.94 02/1952	9.46 12/1890	11.80 04/1933	14.81 12/1894	17.75 04/1868	21.21 07/1933	23.88 03/1885	26.70 12/1867	29.82 05/1868	45.77 01/1869	64.29 10/1868	80.90 02/1887	97.89 01/1868
12th...	.48 03/1929	2.50 02/1953	4.58 06/1869	6.88 04/1885	9.43 02/1893	11.79 02/1887	14.78 02/1869	17.75 02/1952	21.08 02/1933	23.75 04/1933	26.63 03/1933	29.32 11/1879	45.57 01/1933	64.28 06/1886	80.89 03/1885	97.52 12/1867
11th...	.47 01/1963	2.42 07/1955	4.56 03/1893	6.79 02/1895	9.41 03/1962	11.71 02/1870	14.71 06/1933	17.71 03/1933	21.02 08/1933	23.67 11/1867	26.60 09/1894	29.19 07/1933	45.42 03/1933	63.72 11/1879	80.84 02/1873	97.39 08/1867
10th...	.46 09/1933	2.41 09/1888	4.31 03/1929	6.66 05/1869	9.25 05/1868	11.56 01/1929	14.68 03/1933	17.63 10/1879	21.01 02/1869	23.04 06/1933	26.57 08/1933	29.10 06/1894	45.39 11/1879	63.49 01/1870	80.66 10/1879	96.99 11/1867
9th....	.45 08/1947	2.36 02/1892	4.29 01/1953	6.64 01/1953	9.13 04/1869	11.55 02/1952	14.58 01/1870	17.44 01/1885	21.00 10/1879	23.64 07/1933	26.48 07/1894	29.04 08/1894	45.33 10/1879	63.08 07/1868	80.63 01/1869	96.94 05/1885
8th....	.43 01/1881	2.30 04/1946	4.20 04/1921	6.46 03/1887	9.10 03/1870	11.37 01/1887	14.54 02/1885	17.41 02/1868	20.96 09/1894	23.56 01/1869	26.44 09/1933	29.04 03/1887	45.28 02/1869	62.91 09/1867	80.48 02/1885	96.89 06/1868
7th....	.43 06/1942	2.06 03/1946	4.05 06/1885	6.44 05/1885	9.06 03/1885	11.31 01/1953	14.53 01/1887	17.40 11/1873	20.73 02/1868	23.52 11/1873	26.28 01/1933	28.83 08/1933	44.93 04/1869	62.87 10/1879	80.22 01/1885	96.79 06/1885
6th....	.41 06/1889	2.05 06/1868	3.99 04/1895	6.43 03/1893	8.83 01/1929	11.25 03/1870	14.50 12/1890	17.37 03/1869	20.38 06/1933	23.40 08/1894	26.07 06/1933	28.66 01/1933	44.70 02/1868	62.81 06/1868	78.76 12/1867	96.74 01/1869
5th....	.40 06/1865	2.03 03/1875	3.87 05/1868	6.42 01/1929	8.74 02/1875	11.14 03/1869	14.40 03/1870	17.33 01/1869	20.26 11/1873	23.38 12/1867	25.57 05/1933	28.32 11/1867	44.03 02/1933	62.47 09/1868	78.35 01/1868	96.69 04/1885
4th....	.38 04/1938	1.95 05/1895	3.55 03/1940	6.10 02/1875	8.63 02/1887	11.13 02/1875	14.27 04/1868	17.01 02/1870	19.68 01/1870	22.48 02/1933	25.00 11/1867	28.00 05/1933	43.97 05/1868	62.38 12/1867	77.54 11/1867	95.99 10/1867
3rd....	.37 07/1878	1.90 01/1963	3.34 02/1873	5.70 02/1873	8.32 04/1885	10.95 04/1868	14.26 05/1933	16.73 01/1870	19.62 11/1867	22.31 05/1933	24.86 02/1933	27.69 07/1894	43.91 03/1868	61.79 05/1868	76.56 03/1868	95.99 04/1868
2nd....	.25 02/1932	1.90 03/1929	3.31 02/1875	5.60 01/1892	8.00 02/1895	10.86 01/1895	14.22 11/1873	16.64 05/1933	19.11 03/1933	22.17 09/1894	24.61 08/1894	27.54 04/1933	43.89 04/1868	61.73 04/1868	76.40 02/1868	95.86 03/1885
DRIEST	.17 09/1894	1.60 03/1892	3.20 02/1892	5.57 04/1868	7.84 02/1873	10.50 03/1885	13.86 02/1870	16.23 04/1933	18.81 04/1933	21.49 03/1933	24.28 04/1933	27.16 03/1933	43.79 03/1869	59.72 11/1867	75.24 04/1868	95.56 09/1867

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·5 EDENFEL 1865–1963

EXTRACT FROM COMPUTER PRINT-OUT: **WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD**

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	11.41 12/1929	21.54 10/1938	28.46 10/1929	34.08 10/1929	40.76 08/1928	47.28 08/1930	52.91 08/1930	58.00 07/1930	62.04 06/1938	67.28 06/1938	71.80 05/1938	77.68 08/1930	111.02 08/1929	141.42 08/1929	173.88 08/1929	203.53 06/1928
2nd....	11.25 08/1930	19.47 11/1959	28.19 10/1938	34.06 10/1938	40.41 10/1938	45.65 10/1938	52.37 07/1930	55.76 07/1936	60.43 06/1930	66.56 05/1938	71.51 08/1930	76.60 07/1930	110.47 11/1959	139.23 07/1929	173.14 08/1928	201.93 01/1928
3rd....	11.14 11/1938	19.36 11/1929	26.18 11/1959	33.73 08/1928	40.35 08/1930	45.44 07/1930	49.93 09/1938	55.69 06/1938	60.21 07/1930	65.60 08/1930	71.00 06/1938	76.48 01/1928	110.14 08/1930	139.02 11/1959	170.76 07/1929	200.42 06/1928
4th....	10.82 11/1963	19.04 10/1917	26.11 10/1959	32.85 10/1959	39.27 08/1929	44.89 08/1929	49.82 06/1938	55.12 08/1930	60.21 05/1938	64.47 07/1930	70.69 07/1930	75.52 05/1938	109.18 10/1959	138.71 10/1959	170.76 10/1959	200.10 07/1928
5th....	10.74 01/1926	18.73 08/1946	25.87 07/1950	32.72 07/1950	39.20 10/1959	44.69 09/1938	49.72 06/1928	54.80 06/1930	59.38 08/1930	64.26 05/1954	69.47 10/1959	73.72 11/1959	109.04 09/1935	138.00 10/1929	170.12 06/1929	198.49 01/1926
6th....	10.46 01/1928	18.41 09/1934	25.82 09/1938	32.69 08/1930	38.63 09/1935	43.82 07/1950	49.37 10/1938	54.34 05/1938	59.38 07/1938	63.65 10/1959	69.45 01/1928	73.34 08/1946	108.67 07/1927	137.39 06/1929	169.68 08/1927	198.41 02/1928
7th....	10.40 10/1938	18.00 10/1935	25.64 08/1928	32.53 11/1959	38.34 09/1938	43.52 09/1954	48.87 07/1929	54.14 07/1938	58.99 07/1936	63.33 07/1936	67.68 06/1946	73.21 11/1941	108.13 07/1930	137.23 01/1927	169.30 07/1927	197.99 12/1925
8th....	10.37 08/1928	17.92 10/1928	25.63 08/1934	32.47 09/1938	37.78 07/1930	43.49 07/1928	48.79 07/1936	53.65 09/1938	58.39 05/1954	63.10 07/1938	67.32 11/1941	73.12 06/1930	108.07 07/1929	137.11 01/1928	169.08 09/1959	197.87 01/1927
9th....	10.35 12/1959	17.79 11/1938	25.49 11/1951	31.76 10/1930	37.72 07/1950	43.25 07/1929	48.14 07/1942	52.94 06/1929	58.16 06/1936	62.80 11/1959	66.98 06/1938	73.09 10/1959	108.05 10/1929	136.59 09/1929	168.94 07/1928	197.77 08/1929
10th...	9.94 12/1919	17.60 12/1919	25.28 09/1935	31.64 09/1954	37.65 09/1954	43.17 06/1938	48.05 07/1950	52.80 08/1938	57.45 05/1929	62.70 05/1930	66.90 06/1930	73.00 10/1941	107.80 09/1959	136.44 11/1941	168.92 08/1934	197.77 03/1934
11th...	9.92 09/1934	17.26 12/1925	25.00 08/1930	31.35 10/1935	37.39 10/1930	43.14 08/1928	47.87 06/1930	52.79 17/1942	57.20 06/1954	62.64 06/1930	66.86 12/1949	72.86 10/1949	107.72 09/1929	135.68 05/1929	168.66 09/1934	197.64 04/1934
12th...	9.92 10/1935	17.24 11/1951	24.98 11/1929	30.96 09/1935	36.46 07/1928	42.77 09/1936	47.79 07/1938	52.68 07/1954	57.14 05/1930	62.33 07/1946	66.58 07/1946	72.25 06/1938	107.49 06/1927	135.57 10/1941	168.41 09/1928	197.28 09/1928
13th...	9.90 01/1937	17.23 01/1928	24.85 10/1928	30.88 11/1936	36.33 10/1936	42.69 06/1928	47.78 10/1959	52.38 06/1946	56.98 11/1959	62.18 07/1960	66.43 09/1930	72.23 11/1949	107.01 08/1928	135.41 05/1938	168.19 07/1926	197.26 03/1928
14th...	9.83 10/1928	17.22 10/1963	24.83 10/1930	30.39 09/1928	36.15 08/1934	42.45 10/1959	47.75 08/1954	52.38 05/1954	56.83 08/1946	62.16 10/1930	66.42 11/1959	72.22 04/1938	105.85 06/1930	134.55 09/1959	167.73 10/1929	197.16 05/1929
15th...	9.69 10/1917	17.20 09/1935	24.33 07/1946	30.34 09/1929	36.03 09/1930	42.29 08/1935	47.69 05/1938	52.10 06/1928	56.62 04/1950	61.39 06/1936	66.35 08/1946	72.08 12/1927	105.81 08/1927	134.55 12/1959	167.52 06/1928	197.11 06/1929
	534*	533*	532*	531*	530*	529*	528*	527*	526*	525*	524*	523*	517*	511*	505*	499*
15th...	1.27 05/1935	4.23 04/1956	7.71 03/1929	11.45 03/1936	15.31 05/1949	19.48 03/1952	24.25 06/1933	28.81 07/1933	33.25 02/1955	37.97 12/1958	43.10 01/1921	46.49 06/1933	74.40 05/1921	104.11 12/1951	131.66 03/1921	162.20 05/1955
14th...	1.27 06/1925	4.17 06/1949	7.66 03/1918	11.33 02/1930	15.16 02/1941	19.44 04/1959	24.21 09/1933	28.71 05/1933	33.22 03/1933	37.86 08/1937	42.98 07/1933	46.42 07/1933	74.09 05/1952	103.88 02/1955	131.43 06/1920	162.10 12/1954
13th...	1.25 05/1939	4.15 03/1918	7.54 02/1953	11.03 04/1921	15.00 02/1929	19.38 01/1930	24.11 03/1921	28.68 02/1955	33.16 02/1959	37.60 01/1953	42.91 06/1937	46.20 03/1952	74.04 06/1921	103.61 03/1955	103.67 11/1950	161.93 01/1955
12th...	1.17 07/1955	4.15 08/1959	7.47 05/1949	10.93 02/1929	14.94 02/1953	19.15 02/1921	24.09 10/1937	28.61 10/1937	33.04 08/1933	37.59 07/1933	42.73 09/1933	46.17 10/1958	73.86 03/1933	103.51 04/1921	130.45 02/1951	161.77 06/1955
11th...	1.10 06/1942	4.12 02/1934	7.25 02/1956	10.92 02/1953	14.90 05/1940	19.07 02/1919	24.09 03/1921	28.39 12/1928	32.70 09/1937	37.25 03/1937	42.67 01/1919	46.15 08/1933	73.55 12/1951	102.96 06/1955	129.89 01/1921	161.63 08/1931
10th...	.96 08/1955	4.10 02/1929	7.15 03/1956	10.67 02/1946	14.73 02/1921	18.98 02/1929	24.08 05/1922	28.27 01/1959	32.69 03/1922	37.19 02/1955	42.61 05/1952	46.06 05/1955	73.47 01/1933	102.85 01/1955	129.40 01/1952	161.56 08/1920
9th....	.94 03/1924	4.05 04/1957	7.07 03/1952	10.66 03/1941	14.65 02/1936	18.85 02/1930	23.70 02/1919	28.20 04/1933	32.45 01/1941	37.03 01/1919	42.28 02/1933	45.89 05/1952	73.20 04/1952	102.07 04/1952	129.17 02/1932	161.36 04/1921
8th....	.91 11/1945	4.03 05/1921	6.82 04/1936	10.56 03/1957	14.28 02/1956	18.78 01/1956	23.64 03/1952	28.18 09/1937	32.32 06/1933	36.96 02/1919	41.87 08/1933	45.85 03/1955	72.69 12/1954	101.80 12/1920	129.05 12/1950	161.16 03/1951
7th....	.88 03/1929	3.92 03/1938	6.80 04/1941	10.55 03/1952	14.14 01/1956	18.69 12/1952	23.33 11/1952	27.65 04/1921	32.18 07/1933	36.87 08/1955	41.50 08/1955	45.56 05/1933	72.24 02/1933	101.30 05/1952	128.35 02/1955	161.16 02/1955
6th....	.75 02/1934	3.90 02/1924	6.61 04/1921	10.33 05/1940	13.76 02/1930	18.15 01/1941	22.96 02/1955	27.63 08/1933	32.17 01/1929	36.78 05/1933	41.38 06/1955	45.42 05/1937	71.26 03/1952	101.24 01/1921	127.79 03/1955	160.95 03/1955
5th....	.67 06/1941	3.83 05/1941	6.48 01/1929	10.29 04/1952	13.75 02/1952	17.98 04/1921	22.81 03/1955	27.38 03/1955	31.66 04/1933	36.68 03/1933	41.10 06/1933	44.93 04/1952	70.68 03/1955	101.11 01/1952	127.11 03/1952	160.91 05/1951
4th....	.43 06/1921	3.43 05/1940	6.42 02/1929	10.27 02/1952	13.72 05/1959	17.38 01/1929	22.73 04/1921	27.35 11/1952	31.32 02/1919	36.46 01/1959	40.32 11/1958	44.75 03/1933	69.81 01/1952	100.49 02/1921	126.97 01/1951	159.61 12/1950
3rd....	.42 04/1938	3.29 04/1946	6.12 01/1953	9.64 02/1956	13.31 01/1929	17.09 03/1955	22.71 12/1952	26.84 02/1952	31.32 03/1955	35.77 02/1921	40.15 05/1933	43.77 06/1955	69.62 02/1955	99.96 03/1952	126.08 02/1952	158.88 11/1950
2nd....	.35 08/1947	3.20 03/1929	6.10 03/1946	9.40 01/1953	13.04 03/1952	16.80 01/1953	22.68 02/1952	26.49 02/1959	30.85 02/1921	35.69 06/1933	39.73 04/1933	43.10 04/1933	69.52 01/1955	99.21 07/1955	126.05 01/1955	158.38 02/1951
DRIEST	.20 02/1932	2.13 07/1955	6.03 04/1957	8.80 01/1929	12.78 01/1953	16.24 02/1952	21.36 01/1929	26.10 02/1921	29.79 01/1959	35.65 07/1955	38.04 07/1955	42.68 07/1955	69.27 02/1952	97.19 02/1952	125.82 02/1921	158.27 01/1951

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·6 GLENEDRA LODGE, 1917-1963 SEE SPECIAL COMMENT, para.23.

EXTRACT FROM COMPUTER PRINT-OUT: **WETTEST to 15th-WETTEST & 15th-DRIEST to DRIEST ON RECORD**

Amount in inches : Month/year consecutive months period commenced

	CONSECUTIVE MONTHS															
	1	2	3	4	5	6	7	8	9	10	11	12	18	24	30	36
WETTEST	11.34 12/1876	21.44 12/1876	28.66 11/1876	34.59 10/1876	41.01 09/1876	45.14 08/1876	47.58 08/1876	51.90 09/1876	56.03 08/1876	59.94 08/1876	62.20 08/1876	66.30 09/1876	90.26 08/1876	108.64 08/1876	129.86 06/1875	152.71 09/1876
2nd....	11.03 10/1870	18.56 11/1876	24.49 10/1876	31.10 11/1876	37.03 10/1876	43.45 09/1876	46.34 07/1876	50.18 08/1876	55.81 09/1876	58.07 09/1876	62.11 09/1876	66.24 08/1876	88.62 09/1876	107.74 07/1876	129.37 07/1875	152.20 08/1876
3rd....	10.10 01/1877	14.95 11/1929	23.88 12/1876	30.91 09/1876	35.04 08/1876	39.63 10/1876	46.05 09/1876	49.39 10/1876	51.65 10/1876	57.23 07/1876	61.14 07/1876	63.55 06/1876	87.88 07/1876	107.39 09/1876	128.87 09/1875	151.63 10/1876
4th....	10.07 10/1894	14.50 10/1954	20.33 10/1872	26.48 12/1876	33.70 11/1876	39.55 11/1876	45.48 10/1876	48.78 07/1876	51.38 07/1876	55.69 10/1876	59.88 10/1876	63.40 07/1876	86.30 06/1876	107.11 06/1875	128.68 08/1875	150.61 06/1875
5th....	8.90 12/1929	14.39 11/1914	19.77 11/1929	24.95 09/1872	32.33 12/1876	36.24 07/1876	43.46 11/1876	48.75 06/1876	51.19 06/1876	53.95 11/1876	59.64 06/1876	62.34 10/1876	83.93 10/1876	107.05 06/1876	127.37 08/1876	149.23 07/1875
6th....	8.84 12/1914	14.30 11/1872	19.57 09/1876	24.92 10/1872	29.54 09/1872	36.24 12/1876	38.65 06/1876	45.72 11/1876	49.76 11/1876	53.79 06/1876	56.41 11/1876	60.51 11/1876	83.70 09/1875	106.55 09/1875	126.86 09/1876	147.64 09/1875
7th....	8.64 11/1890	14.15 09/1870	19.50 09/1954	24.69 06/1958	29.25 08/1872	33.84 08/1872	38.50 12/1876	43.01 06/1872	49.20 05/1876	51.64 05/1876	54.45 03/1876	60.09 05/1876	83.56 08/1875	106.42 10/1876	126.07 05/1875	147.32 07/1876
8th....	8.58 01/1948	13.72 12/1929	19.31 10/1954	24.31 09/1954	29.10 05/1958	33.65 07/1872	38.42 06/1872	42.54 12/1876	46.73 12/1876	51.22 04/1876	54.24 05/1876	58.99 12/1876	81.77 08/1923	105.11 05/1875	125.08 08/1874	147.06 08/1875
9th....	8.50 12/1934	13.29 10/1870	18.89 11/1872	23.70 08/1876	28.48 09/1954	32.06 09/1954	38.24 07/1872	40.54 05/1872	45.33 05/1872	49.19 12/1876	53.66 04/1876	58.66 02/1876	81.15 11/1876	104.89 07/1875	124.81 11/1874	146.85 10/1875
10th...	8.21 12/1919	13.15 10/1876	18.79 10/1929	23.61 10/1929	27.56 08/1934	31.60 05/1958	35.46 18/1872	39.86 07/1872	44.63 06/1872	47.88 04/1872	53.29 12/1876	57.57 01/1872	81.05 05/1876	104.66 08/1875	124.77 07/1876	146.78 11/1876
11th...	7.99 12/1911	13.08 01/1883	18.56 09/1875	23.48 10/1954	27.19 06/1958	31.34 08/1954	35.01 07/1924	39.63 05/1924	43.82 05/1924	47.76 04/1924	51.92 02/1872	56.89 03/1876	80.14 07/1923	103.78 02/1876	124.71 06/1876	146.71 05/1875
12th...	7.99 11/1931	13.01 12/1911	18.33 12/1911	22.98 12/1911	27.17 08/1954	31.24 10/1911	34.93 07/1954	39.10 05/1876	43.57 04/1924	47.61 05/1924	51.55 04/1924	56.51 02/1872	80.06 10/1875	103.34 11/1876	124.40 12/1922	146.31 01/1875
13th...	7.95 02/1923	12.88 08/1958	18.14 07/1950	22.93 11/1914	27.06 10/1954	31.16 09/1872	34.92 08/1954	38.82 05/1958	43.29 04/1872	47.35 12/1957	51.25 03/1872	56.26 04/1876	79.81 11/1875	102.77 10/1875	124.36 10/1875	146.18 08/1874
14th...	7.91 12/1872	12.87 12/1947	17.90 01/1928	22.81 10/1920	26.83 11/1911	30.92 08/1923	34.83 09/1927	38.81 06/1924	42.76 12/1911	47.24 06/1872	51.02 10/1911	54.38 10/1957	79.76 02/1876	102.69 02/1923	123.88 05/1876	146.15 12/1874
15th...	7.90 08/1956	12.80 12/1919	17.76 10/1920	22.57 09/1934	26.59 10/1911	30.82 07/1924	34.62 06/1924	38.80 07/1924	42.60 06/1924	46.75 05/1872	50.32 11/1957	54.31 08/1946	79.74 03/1876	102.06 03/1876	123.88 08/1923	146.10 09/1874
	1,122*	1,121*	1,120*	1,119*	1,118*	1,117*	1,116*	1,115*	1,114*	1,113*	1,112*	1,111*	1,105*	1,099*	1,093*	1,087*
15th...	.44 06/1921	2.10 10/1879	3.92 12/1890	6.06 02/1874	8.09 02/1873	10.95 05/1887	13.46 11/1952	16.12 02/1952	18.75 06/1887	21.12 07/1933	24.37 07/1933	26.57 06/1873	43.63 03/1933	62.95 04/1889	80.65 05/1951	100.66 06/1951
14th...	.41 06/1889	2.03 03/1929	3.86 04/1873	6.03 04/1868	8.09 01/1874	10.85 02/1893	13.43 01/1887	16.09 12/1892	18.65 02/1890	21.01 08/1933	23.97 06/1933	26.55 07/1873	43.17 01/1887	62.92 04/1951	80.62 12/1892	100.59 12/1950
13th...	.40 07/1919	1.95 02/1952	3.86 10/1879	6.00 02/1944	8.02 02/1895	10.78 11/1952	13.40 01/1953	16.04 12/1933	18.62 01/1874	20.98 04/1887	23.80 12/1886	26.38 04/1873	42.65 04/1869	62.82 05/1889	80.61 01/1932	100.56 03/1887
12th...	.38 09/1895	1.84 02/1934	3.83 02/1952	5.84 12/1952	7.89 03/1887	10.61 02/1934	13.31 09/1933	15.77 04/1887	18.21 01/1887	20.98 10/1904	23.73 12/1873	26.24 05/1887	42.62 11/1886	62.55 06/1886	80.59 04/1904	100.46 09/1951
11th...	.35 09/1894	1.78 05/1887	3.65 02/1887	5.73 02/1952	7.96 03/1874	10.60 12/1952	13.15 01/1949	15.65 03/1893	17.89 01/1911	20.87 03/1893	23.70 01/1893	26.04 11/1889	42.56 12/1886	62.48 09/1951	80.42 06/1951	100.24 02/1904
10th...	.35 06/1942	1.71 05/1895	3.62 05/1868	5.70 02/1956	7.95 02/1952	10.13 01/1887	12.99 03/1911	15.60 09/1933	17.84 04/1887	20.76 02/1893	22.77 08/1873	26.00 12/1892	42.53 12/1951	62.31 06/1951	80.21 02/1952	100.10 11/1950
9th....	.33 02/1888	1.70 02/1944	3.56 02/1953	5.54 03/1874	7.94 03/1870	10.08 01/1949	12.87 03/1870	15.56 11/1933	17.76 08/1933	20.12 11/1873	22.59 01/1887	25.95 04/1887	42.32 01/1933	62.28 02/1887	80.09 03/1951	100.00 03/1893
8th....	.29 02/1891	1.70 03/1892	3.45 03/1875	5.24 12/1890	7.92 12/1952	9.86 02/1874	12.70 01/1952	15.47 08/1933	17.61 11/1933	20.03 09/1933	22.58 11/1873	25.55 07/1933	41.86 02/1933	62.18 06/1889	80.05 10/1904	99.73 05/1951
7th....	.28 04/1873	1.61 02/1891	3.44 03/1938	5.20 02/1938	7.90 02/1949	9.75 03/1887	12.56 03/1887	15.20 01/1887	17.25 09/1873	19.78 05/1887	22.55 10/1873	25.32 09/1873	41.54 02/1952	62.11 07/1951	79.86 01/1952	99.72 03/1951
6th....	.25 05/1896	1.54 04/1896	3.31 04/1887	5.13 10/1879	7.89 02/1953	9.75 03/1870	12.48 04/1887	15.11 11/1952	17.22 03/1893	19.30 12/1873	22.35 03/1887	25.19 08/1873	41.51 03/1869	62.09 10/1904	79.84 04/1951	99.65 02/1887
5th....	.22 06/1925	1.54 03/1875	3.31 02/1892	5.00 03/1893	7.80 12/1873	9.47 01/1874	12.25 12/1952	14.48 10/1873	17.14 03/1887	19.30 01/1887	22.19 08/1933	25.01 10/1873	40.60 01/1952	62.05 10/1951	79.82 01/1893	99.60 08/1888
4th....	.21 05/1895	1.48 06/1868	3.02 02/1875	4.93 02/1875	7.57 01/1953	9.46 02/1952	12.05 11/1873	13.85 03/1887	16.84 12/1873	19.21 03/1887	22.08 09/1933	24.66 01/1887	39.71 03/1873	61.96 01/1873	79.71 02/1932	99.08 02/1951
3rd....	.15 02/1932	1.48 02/1953	2.88 02/1938	4.89 01/1953	7.44 02/1874	9.22 01/1953	11.89 01/1874	13.43 11/1873	15.86 10/1873	18.63 09/1873	21.31 04/1887	24.24 08/1933	39.56 04/1873	60.64 12/1951	79.26 03/1873	98.87 05/1904
2nd....	.13 04/1938	1.46 01/1891	2.81 01/1953	4.68 02/1887	7.31 03/1893	8.77 12/1873	10.50 02/1887	13.31 02/1887	15.85 11/1873	18.28 10/1873	21.05 09/1873	23.10 02/1887	39.23 01/1873	60.40 01/1952	78.90 01/1873	98.55 04/1904
DRIEST	.07 02/1934	1.12 03/1938	2.78 01/1891	4.68 03/1887	5.43 02/1887	8.73 02/1887	10.15 12/1873	12.57 12/1873	14.60 02/1887	17.89 02/1887	19.96 02/1887	22.68 03/1887	37.06 02/1873	59.85 02/1952	78.58 02/1873	97.94 03/1904

* Number of observations between 15th wettest and 15th driest in the series, not reproduced in this Table

TABLE 6·7 SEAFORDE HOUSE 1868-1963 SEE SPECIAL COMMENT, para. 24-25

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